



**TRANSPORTATION, WATER &
INFRASTRUCTURE COMMITTEE**

December 7, 2015

1:00 P.M.

651 Pine Street, Room 101, Martinez

Supervisor Candace Andersen, Chair
Supervisor Mary N. Piepho, Vice Chair

Agenda Items:	Items may be taken out of order based on the business of the day and preference of the Committee
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1. **Introductions**
2. **Public comment on any item under the jurisdiction of the Committee and not on this agenda,**(speakers may be limited to three minutes).
3. **Administrative Items.** (John Cunningham, Department of Conservation and Development)
4. **REVIEW record of meeting for November 2, 2015, Transportation, Water and infrastructure Committee Meeting.** This record was prepared pursuant to the Better Government Ordinance 95-6, Article 25-205 (d) of the Contra Costa County Ordinance Code. Any handouts or printed copies of testimony distributed at the meeting will be attached to this meeting record. (John Cunningham, Department of Conservation and Development).
5. **RECEIVE Report on PG&E Coordination with Cities and County for Street Light Maintenance and on PG&E Implementation of Letter of Understanding** (Susan Cohen, Department of Public Works).
6. **RECEIVE yearly update on the County's IPM Program from the IPM Coordinator, receive report on status of public comment/concerns and take ACTION as appropriate.**(Tanya Drlik, IPM Coordinator)
7. **ACCEPT report on I-680/Treat Boulevard Bike/Pedestrian Plan and take ACTION as appropriate.** (Jamar Stamps, Department of Conservation and Development)
8. **CONSIDER Report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate.** (John Cunningham, Department of Conservation and Development).

9. **CONSIDER report to the Board on the status of items referred to the Committee for 2015.**(John Cunningham, Department of Conservation and Development)
10. **REVIEW, REVISE as appropriate, and ADOPT the 2016 Calendar** (John Cunningham, Department of Conservation and Development).
11. **CONSIDER recommendations on referrals to the Committee for 2016, and take ACTION as appropriate.** (John Cunningham, Department of Conservation and Development)
12. The next meeting is currently scheduled for Monday, January 4th, 2016.
13. Adjourn

The Transportation, Water & Infrastructure Committee (TWIC) will provide reasonable accommodations for persons with disabilities planning to attend TWIC meetings. Contact the staff person listed below at least 72 hours before the meeting.

Any disclosable public records related to an open session item on a regular meeting agenda and distributed by the County to a majority of members of the TWIC less than 96 hours prior to that meeting are available for public inspection at the County Department of Conservation and Development, 30 Muir Road, Martinez during normal business hours.

Public comment may be submitted via electronic mail on agenda items at least one full work day prior to the published meeting time.

For Additional Information Contact:

John Cunningham, Committee Staff
Phone (925) 674-7833, Fax (925) 674-7250
john.cunningham@dcd.cccounty.us

Glossary of Acronyms, Abbreviations, and other Terms (in alphabetical order): Contra Costa County has a policy of making limited use of acronyms, abbreviations, and industry-specific language in meetings of its Board of Supervisors and Committees. Following is a list of commonly used abbreviations that may appear in presentations and written materials at meetings of the Transportation, Water and Infrastructure Committee:

AB Assembly Bill	HOT High-Occupancy/Toll
ABAG Association of Bay Area Governments	HOV High-Occupancy-Vehicle
ACA Assembly Constitutional Amendment	HSD Contra Costa County Health Services Department
ADA Americans with Disabilities Act of 1990	HUD United States Department of Housing and Urban Development
ALUC Airport Land Use Commission	IPM Integrated Pest Management
AOB Area of Benefit	ISO Industrial Safety Ordinance
BAAQMD Bay Area Air Quality Management District	JPA/JEPA Joint (Exercise of) Powers Authority or Agreement
BART Bay Area Rapid Transit District	Lamorinda Lafayette-Moraga-Orinda Area
BATA Bay Area Toll Authority	LAFCo Local Agency Formation Commission
BCDC Bay Conservation & Development Commission	LCC League of California Cities
BDCP Bay-Delta Conservation Plan	LTMS Long-Term Management Strategy
BGO Better Government Ordinance (Contra Costa County)	MAC Municipal Advisory Council
BOS Board of Supervisors	MAF Million Acre Feet (of water)
CALTRANS California Department of Transportation	MBE Minority Business Enterprise
CalWIN California Works Information Network	MOA Memorandum of Agreement
CalWORKS California Work Opportunity and Responsibility to Kids	MOE Maintenance of Effort
CAER Community Awareness Emergency Response	MOU Memorandum of Understanding
CAO County Administrative Officer or Office	MTC Metropolitan Transportation Commission
CCTA Contra Costa Transportation Authority	NACo National Association of Counties
CCWD Contra Costa Water District	NEPA National Environmental Protection Act
CDBG Community Development Block Grant	OES-EOC Office of Emergency Services-Emergency Operations Center
CEQA California Environmental Quality Act	PDA Priority Development Area
CFS Cubic Feet per Second (of water)	PWD Contra Costa County Public Works Department
CPI Consumer Price Index	RCRC Regional Council of Rural Counties
CSA County Service Area	RDA Redevelopment Agency or Area
CSAC California State Association of Counties	RFI Request For Information
CTC California Transportation Commission	RFP Request For Proposals
DCC Delta Counties Coalition	RFQ Request For Qualifications
DCD Contra Costa County Dept. of Conservation & Development	SB Senate Bill
DPC Delta Protection Commission	SBE Small Business Enterprise
DSC Delta Stewardship Council	SR2S Safe Routes to Schools
DWR California Department of Water Resources	STIP State Transportation Improvement Program
EBMUD East Bay Municipal Utility District	SWAT Southwest Area Transportation Committee
EIR Environmental Impact Report (a state requirement)	TRANSPAC Transportation Partnership & Cooperation (Central)
EIS Environmental Impact Statement (a federal requirement)	TRANSPLAN Transportation Planning Committee (East County)
EPA Environmental Protection Agency	TWIC Transportation, Water and Infrastructure Committee
FAA Federal Aviation Administration	USACE United States Army Corps of Engineers
FEMA Federal Emergency Management Agency	WBE Women-Owned Business Enterprise
FTE Full Time Equivalent	WCCTAC West Contra Costa Transportation Advisory Committee
FY Fiscal Year	WETA Water Emergency Transportation Authority
GHAD Geologic Hazard Abatement District	WRDA Water Resources Development Act
GIS Geographic Information System	
HBRR Highway Bridge Replacement and Rehabilitation	



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

3.

Meeting Date: 12/07/2015
Subject: Administrative Items. (John Cunningham, Department of Conservation and Development).
Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE,
Department: Conservation & Development
Referral No.: N/A
Referral Name: N/A
Presenter: John Cunningham, DCD **Contact:** John Cunningham
(925)674-7833

Referral History:

This is an Administrative Item of the Committee.

Referral Update:

Staff will review any items related to the conduct of Committee business.

Recommendation(s)/Next Step(s):

Take ACTION as appropriate.

Fiscal Impact (if any):

N/A

Attachments

No file(s) attached.



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

4.

Meeting Date: 12/07/2015

Subject: REVIEW record of meeting for November 2, 2015, Transportation, Water and infrastructure Committee Meeting.

Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE,

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: John Cunningham, DCD

Contact: John Cunningham
(925)674-7833

Referral History:

County Ordinance (Better Government Ordinance 95-6, Article 25-205, [d]) requires that each County Body keep a record of its meetings. Though the record need not be verbatim, it must accurately reflect the agenda and the decisions made in the meeting.

Referral Update:

Any handouts or printed copies of testimony distributed at the meeting will be attached to this meeting record.

Links to the agenda and minutes will be available at the TWI Committee web page:

<http://www.cccounty.us/4327/Transportation-Water-Infrastructure>

Recommendation(s)/Next Step(s):

Staff recommends approval of the attached Record of Action for the November 2, 2015 Committee Meeting with any necessary corrections.

Fiscal Impact (if any):

N/A

Attachments

[11-2-15 TWIC Sign-In Sheet](#)

[Nov 2015 TWIC Meeting Record](#)

DRAFT



TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

November 2, 2015

1:00 P.M.

651 Pine Street, Room 101, Martinez

Supervisor Candace Andersen, Chair
Supervisor Mary N. Piepho, Vice Chair

Agenda Items:

Items may be taken out of order based on the business of the day and preference of the Committee

Present: Candace Andersen, Chair
Mary N. Piepho, Vice Chair

Attendees: Peter Engel, CCTA

Matt Slattengren, CC County Agriculture, Weights/Mea
Steve Reymann, CC County Agriculture, Weights/Mea
Gil Rocha, CC County Agriculture, Weights/Mea
Stephen Kowaleski, CC County Public Works Dept
Carrie Ricci, CC County Public Works Dept
Julie Bueren, CC County Public Works Dept
Robert Sarmiento, CC County DCD, Transportation Div
Kristine Solseng, CC County DCD, GIS Mapping
Rich Seithel, CC County DCD, Economic Dev
Maureen Toms, CC County DCD, Transportation Div
John Cunningham, CC County DCD, Transportation Div

1. Introductions

Please see attached sign-in sheet, hand-outs and "Attendees" section, above.

2. **Public comment on any item under the jurisdiction of the Committee and not on this agenda.** (speakers may be limited to three minutes)

3. **Administrative Items, if applicable.** (John Cunningham, Department of Conservation and Development)

4. **Staff recommends approval of the attached Record of Action for the September 8, 2015 Committee Meeting with any necessary corrections.**(John Cunningham, Department of Conservation and Development)

After correcting the September 8, 2015 meeting record to reflect Supervisor Piepho's absence, the Committee unanimously approved the record.

5. **ACCEPT a report on the status of implementing a regional taxicab permitting process in Contra Costa County; AUTHORIZE staff to continue working with the regional taxicab work group to evaluate the feasibility of establishing a joint taxicab permitting process, including, but not limited to, delegating the County's permitting authority to a new or existing legal entity; DIRECT staff to return to the Committee once the regional workgroup has developed final options for consideration by County jurisdictions.**(Tim Ewell, Department of Public Works)

The Committee unanimously approved the recommendations with the following comments: 1) consider the pros/cons of a Joint Powers Agreement vs. a Memorandum of Understanding in the context of how many taxi's operate in the County, 2) how will new ride sharing services will be affected by a new local regulatory structure, and 3) identify areas where the state may preempt local jurisdictions, and 4) communicate with the constituent that originally raised the issue.

6. **ACCEPT report on the implementation of Measure WW Park Project List and Expenditure Plan for the Unincorporated Areas of the county and RECOMMEND the Board of Supervisors adopt a Resolution providing Authorization to apply for local grand funds from the East Bay Regional Park District under Measure WW Park Bond Extension.**(Kristine Solseng, Department of Conservation and Development)

The Committee accepted the report and unanimously approved the staff recommendations with the comment that staff should broadcast the role of the county in the projects through signage, district newsletters and any other available forms of communication.

Don Mount, County Resident, commented that these positive projects should be promoted in a newspaper article.

7. **CONSIDER Report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate including CONSIDERATION of specific recommendations in the report above.** (John Cunni (John Cunningham, Department of Conservation and Development)

The Committee received the State report from Mark Watts (update on the Special Session/Conference Committee, Iron Horse Corridor issues), and County staff (Contra Costa Transportation Authority - Transportation Expenditure Plan).

8. The next meeting is currently scheduled for Monday, December 7, 2015.

9. Adjourn

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John Cunningham, Committee Staff

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Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

5.

Meeting Date: 12/07/2015

Subject: Monitor implementation of the Letter of Understanding with PG&E for the maintenance of PG&E street lights in Contra Costa County.

Department: Conservation & Development

Referral No.: 13

Referral Name: MONITOR implementation of the Letter of Understanding with PG&E for the maintenance of PG&E streetlights in Contra Costa County.

Presenter: Susan Cohen, Department of Public Works

Contact: Susan Cohen
(925)313-2160

Referral History:

Board of Supervisors accepted 2014 status report on street light maintenance by PG&E in coordination with Cities (Countywide) on June 16, 2015.

Referral Update:

The Transportation, Water and Infrastructure Committee (TWIC) requested Public Works staff to report annually on the status of street light maintenance coordination efforts with PG&E. Staff reported at the December 4, 2014 meeting regarding this item.

Background:

The Letter of Understanding (LOU), dated February 2008, between PG&E and the County, states the commitment of PG&E for open communication and responsive service levels and actions in resolving issues related to street light performance. Communication channels have continued to remain open by conducting regular discussions at street light coordination meetings with the County and its constituent Cities and Towns. However, in 2015, there was a change in the frequency of these meetings at the request of PG&E.

Continuing the effort initiated in May 2008 and since reporting to TWIC on December 4, 2014, the County Public Works Department, PG&E and the Cities met in January, March and April 2015. The July meeting was cancelled at the request of PG&E and the October meeting was also cancelled. City attendance was high at the March 2015 meeting when PG&E rolled out the plan to do LED installations countywide.

Because of the generally low City attendance at the meetings, Public Works assembled a City survey which was reviewed by PG&E. The goal of this survey is to determine if Cities and the County should continue to meet to discuss street light issues and if so, to determine the best way

to conduct the meetings, who should attend, how often should meetings be held, identify topics to discuss that would be of value, etc. The plan is to poll the Cities on what topics of interest they would like to hear as well as if the meetings are necessary and/or productive.

The LOU with PG&E was established in 2007/8 and partial implementation has occurred over the past seven years. Staff recommends that it would be desirable review results and revise the PG&E LOU in 2016.

Ongoing concerns by the County including the following:

1. Reporting of outages and request for status/update

With the improvements in the notification process, PG&E's Streetlight Maintenance Department now sends emails to County staff when street lights are repaired but only when requests on outstanding repairs are sent to PG&E. Staff would recommend an automatic response system, whereby when a light is repaired, the County is notified. County staff continues to assist PG&E by providing a list of outstanding cases and requests their status.

2. Light Emitting Diode (LED) Financing and related legislation, specifically AB 719 update

AB 719, approved by the Governor on October 7, 2013 and now a chaptered law, requires the PUC to order electrical corporations to submit tariffs by July 2015 to be used to fund energy efficiency improvements in street light poles owned by the electrical corporations. PG&E has been asked to present updates at the PG&E City/County Street Light Coordination meetings; however, a complete report about this legislation and the plan to implement has not been forthcoming.

3. CPUC updates

The CPUC approved a tariff for the conversion of PG&E-owned (LS-1) high pressure sodium vapor (HPSV) lights to LED throughout the state in 2012. As of August 2014, PG&E has an approved rate schedule for doing the conversions of HPSVs to LEDs and that work is underway in Contra Costa County and its Cities.

4. Letter of Understanding (LOU) with PG&E

PG&E plans to do LED replacements on LS-1 (PG&E owned lights) over a three-year period. Starting with the pilot project in Bay Point in Spring 2015, the unincorporated area work continues and is expected to be completed in 2016.

The summary of goals and target dates for the street light service level commitment per the LOU indicated that some of the goals have been achieved and others are now out of date. Website updates and responsiveness to repair requests should also be addressed. New product choices, e.g. decorative lights, would be a desirable item for the new goals per the LOU. PG&E repair rates over the past four years could be reviewed, as well as development of a capital replacement plan for older equipment including street light poles (wood or painted). The review of the LOU should be a cooperator, joint PG&E/County effort.

Conclusion:

The County, Cities, and PG&E are committed to continue the well-organized and efficient system for street lights. PG&E's reorganization and relocation of the call center in 2012 continues to provide ongoing program improvements in the timeliness and reporting of street light repairs. Another step forward would be if PG&E would routinely report on work done, rather than needing a list requesting updates on repairs.

In light of the LED replacements being installed and the review of summary of goals and target dates as per the 2008 LOU, it is suggested that the County and PG&E review and revise the document so that it's in line with current efforts.

By working together to develop improvements in street lighting, Cities, the County and PG&E are able to improve the delivery of excellent quality street lighting throughout the County.

Next Steps:

1. PG&E and the County should continue to coordinate on the LED replacement projects throughout the County.
2. PG&E, Cities and the County should coordinate on and pursue changes to the LOU to reflect the challenges of 2015 and beyond.
3. PG&E Street Light Coordination meetings should be reconsidered in light of the results of the polling of Cities which will be done in early 2016. Based on the results of the poll, County will identify meeting preferences from Cities and return to TWIC to present a plan going forward. There may be other ways that City and County staff can collaborate on street light issues, assuring cost effective methods for providing energy efficient street lighting and safety for the residents and visitors to the County and City.

Recommendation(s)/Next Step(s):

RECEIVE Report on PG&E Coordination with Cities and County for Street Light Maintenance and on PG&E Letter of Understanding (LOU) and provide DIRECTION as appropriate.

Fiscal Impact (if any):

No impact on the general fund. All costs for street lights are funded by County Service Area L-100 or Community Facilities District 2010-1.

Attachments

BO-LOU with PGE streetlights 4-8-08

C.23

TO: BOARD OF SUPERVISORS
FROM: JULIA R. BUEREN, PUBLIC WORKS DIRECTOR
DATE: APRIL 8, 2008



Contra Costa County

SUBJECT: Letter of Understanding with Pacific Gas and Electric (PG&E) for the maintenance of PG&E street lights within Contra Costa County. Countywide. (County Service Area L-100 Funds) (All Districts)

SPECIFIC REQUEST(S) OR RECOMMENDATION(S) & BACKGROUND AND JUSTIFICATION

RECOMMENDED ACTION:

ACCEPT the final report regarding the Letter of Understanding (LOU) with Pacific Gas and Electric (PG&E) for the maintenance of PG&E street lights within Contra Costa County.

FISCAL IMPACT:

There is no impact to the County General Fund. Funding for this activity is from the County Service Area L-100 (100%).

CONTINUED ON ATTACHMENT: SIGNATURE:

RECOMMENDATION OF COUNTY ADMINISTRATOR APPROVE _____ OTHER _____
 RECOMMENDATION OF BOARD COMMITTEE

SIGNATURE(S):

ACTION OF BOARD ON 04/08/08 APPROVED AS RECOMMENDED OTHER _____

VOTE OF SUPERVISORS:
 UNANIMOUS (ABSENT _____)
AYES: _____ NOES: _____
ABSENT: _____ ABSTAIN: _____

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON MINUTES OF THE BOARD OF SUPERVISORS ON THE DATE SHOWN.

Contact: Brian Balbas (925-313-2284)
BB:df
G:\Admin\Brian\2008\April\BO-LOU with PG&E streetlights4-8-08.doc

ATTESTED 04/08/08
JOHN CULLEN, CLERK OF THE BOARD OF SUPERVISORS

- cc: County Administrator
- Assessor
- Auditor-Controller
- County Counsel
- M. Shiu, Public Works Director
- G. Huisingh, Engineering Services
- R. Colicchica, Harris & Associates
- B. Guletz, Harris & Associates
- B. Mosley, PG&E
- J. Sofranac, PG&E

BY: , DEPUTY

Handwritten initials

C23
4-8-08

SUBJECT: Letter of Understanding with Pacific Gas and Electric (PG&E) for the maintenance of PG&E street lights within Contra Costa County. Countywide. (County Service Area L-100 Funds) (All Districts)

DATE: April 8, 2008

PAGE: 2 of 3

REASONS FOR RECOMMENDATIONS AND BACKGROUND:

On July 10, 2007, the Board of Supervisors authorized the Public Works Director, or designee, to prepare a Memorandum of Understanding (MOU) with PG&E for the maintenance of PG&E street lights per the recommendation by the Transportation, Water and Infrastructure Committee (TWIC) on June 25, 2007. The direction given by the Board of Supervisors was to work with PG&E and interested cities to prepare an MOU to provide for acceptable service standards for the various items previously presented as concerns or on-going issues from the County and cities. PG&E indicated their agreement to this approach with a "Letter of Intent" dated June 21, 2007. The idea of an MOU was given as an alternate approach to the street light acquisition that the Public Works Department and twelve cities have been pursuing beginning in 2001. The County has taken the lead role in conducting a series of studies to determine the feasibility and economic viability of purchasing the street lights from PG&E. The majority of the cities within the county also expressed interest in completing these studies. The original recommendation to the TWIC was to approve Phase IIB of the street light acquisition study; however, this alternative approach to draft an MOU was taken in an effort to reach an agreeable solution without the need for outright acquisition by the County and cities.

Subsequent to the July 2007 Board of Supervisors authorization the Public Works Department, our consultant, Harris & Associates, and PG&E met to complete an agreement on street light maintenance. The proposed MOU approach was replaced with a Letter of Understanding (LOU) in an effort to avoid the need for PG&E to gain approval from the Public Utilities Commission (PUC). The LOU approach was supported by the TWIC at the October 22, 2007 Committee meeting. At that meeting staff presented a status report of the efforts to reach agreement with PG&E. Public Works staff has worked with PG&E and an acceptable LOU has been completed. A copy of this LOU and the service level commitment from PG&E is attached. The letter, dated February 22, 2008 details the service level commitment to the cities and County of Contra Costa. Staff presented this information to the TWIC on March 10, 2008 and the TWI Committee recommended we deliver this final report to the Board of Supervisors.

The key aspects as outlined in the LOU commitment letter are:

1. Streetlight Problem Reporting and Tracking – PG&E has committed to improving the reporting and tracking program currently in place. The on-line reporting system will provide immediate feedback to the reporter and follow-up information as work progresses.
2. Response Times – "Burn outs" will be completed within 14 days. Outages other than burn outs will be completed within 90 days. "Knockdowns" will be completed within 90 days.
3. Pole Painting – PG&E will complete a pole painting schedule that will ensure poles will be painted on at least a ten year cycle. There are provisions for more frequent painting as necessary.
4. Group Re-lamping – PG&E has committed to a five year lamp replacement program throughout the County.
5. New Product Choices – PG&E is committed to working with local jurisdictions on new products for use in various communities.
6. Regular Monthly Coordination Meetings – Regular meetings have been scheduled to discuss on-going issues and responsiveness. These meetings are currently scheduled for the third Monday of each month at the Contra Costa County Public Works Department in Martinez.

C 20
4-8-08

SUBJECT: Letter of Understanding with Pacific Gas and Electric (PG&E) for the maintenance of PG&E street lights within Contra Costa County. Countywide. (County Service Area L-100 Funds) (All Districts)
DATE: April 8, 2008
PAGE: 3 of 3

CONSEQUENCES OF NEGATIVE ACTION:

Should the Board of Supervisors not accept the Letter of Understanding with PG&E, the County and interested cities would likely not receive the service standards outlined by PG&E in the attached letter. Lack of standards such as those outlined will potentially exacerbate poor street light maintenance in the County.

1030 Detroit Avenue
Concord, CA 94518-2487

Bruce J. Mosley
Energy Delivery Director
Maintenance and Construction – Area 2

C-23
4-8-08



**Pacific Gas and
Electric Company**



February 22, 2008

Mr. Maurice Shiu
Director of Public Works
Contra Costa County
255 Glacier Drive
Martinez, CA 94553-4825

Re: Contra Costa County Streetlights

Dr. Mr. Shiu:

PG&E is committed to providing safe and reliable service to all customers. In that regard, PG&E is pleased to provide the Streetlight Service Level Commitment to Contra Costa County, its constituent cities and towns, and citizens. The PG&E Streetlight Service Level Commitment document is attached, including a summary of goals and the target dates associated with our specific actions related to our commitment.

To ensure open communications, validate progress in our efforts to establish and maintain a high level of responsiveness related to our service level commitment, and to identify new or unresolved issues, PG&E and County staff have established a schedule of joint meetings related to streetlight performance. To facilitate discussion during these meetings, PG&E will report out on streetlight problems, including results of follow up inspections and action taken to resolve the reported problem or a status report of pending resolution.

Providing safe and reliable service is one of my top priorities. Please contact me at any time that you have concerns about PG&E service.

Sincerely,


BRUCE J. MOSLEY
Director, Maintenance & Construction Area 2

BJM:alm

Attachments

C-23
4-8-08

**Streetlight Service Level Commitment
To Contra Costa County
February 22, 2008**

PG&E is committed to delivering a high level of service to Streetlight customers. To ensure a high level of responsiveness to Streetlight maintenance issues in Contra Costa County, PG&E is committed to the following (for Streetlight facilities maintained by PG&E):

1. Reporting Streetlight problems and tracking results.

PG&E will continue to utilize its web based system where Streetlight service requests and problems can be reported via on-line request form. Original on-line reports are acknowledged via automated email response when received.

PG&E is committed to improving this system, and developing more robust on-line reporting and tracking systems that will serve to improve communication with all customers.

2. Responding to Streetlight outages.

a. Initial response to reported Streetlight outages.

PG&E will respond to and complete an initial assessment of reported Streetlight outages within 14 days of being notified of the outage.

b. Streetlight "burn outs".

PG&E will complete repairs of Streetlight "burn-outs" within 14 days of notification of the "burn-out" when the outage can be resolved by simple lamp replacement or similar repair.

c. Streetlight outages – other than "burn out".

Where the Streetlight outage is not the result of "burn-out" and additional work is required, PG&E will complete required repairs within 90 days of assessment of the Streetlight outage. This includes repair of lights damaged due to vandalism, and repairs of wiring problems (including subsurface wiring issues). If PG&E, for any reason, will not be able to complete repairs within 90 days PG&E will notify the customer and will provide an estimated date of completion for repairs.

d. Outages resulting from poles that are "knocked down".

Where a PG&E owned or maintained Streetlight pole is "knocked down", PG&E will provide immediate response to the "knock-down", and will secure the site, and make the situation safe prior to leaving the site. PG&E will complete any remaining required repairs within 90 days. If PG&E, for any reason, will not be able to complete repairs within 90 days PG&E will notify the customer and will provide an estimated date of completion for repairs.

3. Pole painting.

For Streetlight poles that were manufactured to be painted, PG&E will complete one cycle of pole painting by the end of 2008, and will then move to a ten year painting cycle. PG&E is scheduled to complete the initial cycle of pole painting in Contra Costa County by the end of 2007. After the current pole painting cycle is complete, PG&E will (if resources are available), accommodate "off-cycle" pole painting requests for poles manufactured for painting, on a time and material cost basis.

**Streetlight Service Level Commitment
To Contra Costa County
February 22, 2008**

C23
4-8-08

4. Group Lamp Replacement Program.

PG&E will perform Group Lamp Replacements based on a five year schedule to replace all lamps maintained by PG&E. When group lamp replacements are performed, PG&E will also perform other maintenance work, such as testing and replacement of photocells (as required) and cleaning of glassware, reflector, or refractor.

5. New product choices.

Recognizing that some of the PG&E owned Streetlight infrastructure is aging, and will require replacement, PG&E will work with Contra Costa County to discuss options available for replacement lighting. When replacement of existing lighting facilities is required, as determined by PG&E, PG&E will work closely with Contra Costa County to provide information related to new product choices selected for characteristics related to improved energy efficiency, reduced glare and control of upward directed light as they become available and are approved for use in the PG&E Streetlight rate schedules.

On-going communication and reporting:

To ensure open communications, validate progress in our efforts to establish and maintain a high level of responsiveness related to the items specified above, and identify new or unresolved issues, PG&E will propose and establish a regular monthly meeting schedule with Contra Costa County.

To facilitate discussion during the proposed monthly meetings, PG&E will report out on Streetlight problems, including results of follow up inspections and action taken to resolve the reported problem or a status report of pending resolution.



Bruce J. Mosley
Director, Maintenance & Construction Area 2

Streetlight Service Level Commitment
Summary of Goals and Target Dates (2/22/2008)

C23
4-8-08

	Area of Focus – Service Commitment/Progress on Goals	Target Date
1	2007 Streetlight Summary Report <ul style="list-style-type: none"> Detail of poles painted 2007 Burnout Lamp Replacements 	January 2008 Completed
2	2008 Forecast – Group Lamp Replacement Work <ul style="list-style-type: none"> Notify Contra Costa County of forecast of total lamps to be replaced in Contra Costa County 	January 2008 Completed
3	Goals and Progress to be Reported As Needed – to the City/County	
3a	Group Lamp Replacement <ul style="list-style-type: none"> PG&E to perform a study of the feasibility of performing group lamp replacement by City. Report Results of Feasibility Study to Contra Costa County. 	March, 2008
3b	Standard Maintenance Cycles <ul style="list-style-type: none"> Lamps to be scheduled on a 5 year cycle basis. Photo controls to be scheduled on a 10 year basis. Pole painting scheduled as needed. 	On-going
3c	Replace deteriorated facilities <ul style="list-style-type: none"> PG&E owned (Streetlight only) centerbore wood poles. PG&E will report quarterly status of planned and actual centerbore wood pole replacements. (Currently scheduled through 12/31/2012) 	On-going
3d	PG&E to streamline processes related to providing new Streetlight service installations. <ul style="list-style-type: none"> PG&E to report status of streamlined process to Contra Costa County by April 2, 2008 	April 2, 2008
3e	New Product Choices <ul style="list-style-type: none"> PG&E to provide more Streetlight options including decorative poles and fixtures. When PG&E determines that it is operationally necessary to replace a cobra head fixture, consistent with rate schedule LS1, PG&E will install a standard cut-off fixture as a replacement. 	On-going Requires approval of County or City for replacement proposal
3f	Streetlight maintenance reporting and tracking system * Monthly detail report showing progress of goals	February 2008 Completed and will be on-going
3g	Repair Streetlight Outages <ul style="list-style-type: none"> "Burnout Repairs" -- Lamp, photo control or similar repair. 	14 Days from Report
3h	Repair Streetlight Outages <ul style="list-style-type: none"> Non- burnout repairs -- Repair required more extensive than lamp, photo control or ballast. 	90 Days from Report
3i	Streetlight Repairs "Knockdowns" <ul style="list-style-type: none"> "Make Safe" -- Immediate Response Complete repairs -- within 90 days 	90 Days
3j	Paint "Missed" Poles <ul style="list-style-type: none"> For Streetlight poles manufactured for painting, and included under rate schedule LS2-C prior to the elimination of the separate pole painting charge in PG&E's tariffs, PG&E will complete one cycle of pole painting by the end of 2008. (Will complete by the end of 2007 in Contra Costa County.) If any Streetlight poles meeting these tariff criteria were missed in this painting cycle, PG&E will respond to missed poles and paint as required. 	90 days from report



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

6.

Meeting Date: 12/07/2015
Subject: Integrated Pest Management Report
Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE
COMMITTEE,
Department: Conservation & Development
Referral No.: 8
Referral Name: Monitor the implementation of the Integrated Pest Management Policy.
Presenter: Tanya Drlik, IPM Coordinator **Contact:** Tanya Drlik
(925)335-3214

Referral History:

The TWI Committee has asked the Integrated Pest Management Coordinator to update the Committee yearly on the County's integrated pest management program.

Referral Update:

The IPM Coordinator will present the IPM Annual Report to TWI (see attached report).

Recommendation(s)/Next Step(s):

ACCEPT Integrated Pest Management report, and take ACTION as appropriate.

Fiscal Impact (if any):

NONE.

Attachments

[td2015-11-20 IPM Annual Report-Final](#)

[td2015-11-20 County Staff Responses to PfSE Concerns](#)

[td2000-2015 CCC Operations Pesticide Use Data Spreadsheet](#)

Contra Costa County Integrated Pest Management Advisory Committee

2015 Annual IPM Program Status Report

to the

Transportation, Water, and Infrastructure Committee of the Contra Costa Board of Supervisors

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Contra Costa County Integrated Pest Management Advisory Committee

2015 Annual IPM Program Status Report

to the

Transportation, Water, and Infrastructure Committee of the Contra Costa Board of Supervisors

Executive Summary

Work of the IPM Advisory Committee

This year, the IPM Advisory Committee explored

- How pest management decisions are being made in the County,
- Sustainable landscaping for County buildings,
- Reducing turf around County buildings, and
- Bed bug issues in the County.

In 2012, the Committee developed a form for documenting pest management decisions. Since then, the Departments have been using this form to document decisions for various pests. This year, the Public Works Roadside and Flood Control Maintenance Division developed a document for grazing as a vegetation management tool. The Committee recommends that the Departments continue to use the form to document pest management decisions in the Departments.

In this fourth and historically worst year of drought in California, the IPM Advisory Committee made recommendations to the Board of Supervisors on increasing the use of sustainable landscaping and reducing turf around County buildings. The Grounds Division undertook a pilot turf conversion at the Pittsburg Health Center where about 70% of the turf was removed and replaced with drought-tolerant and mulched landscaping. This project is estimated to save one million gallons of water per year.

The IPM Committee researched bed bug legislation in other jurisdictions around the U.S. and drafted a County ordinance based on California Assembly Bill 551. AB 551 may be passed next year, in which case the work of the Committee will inform the implementation of the law in Contra Costa. If AB 551 fails to pass, the County will have the draft of an ordinance that can comprehensively address many of the legal questions surrounding bed bug treatment.

Pesticide Use Reduction by County Operations

Since FY 00-01, County operations have reduced their pesticide use by 72 %. During the same time period, they have reduced their use of “Bad Actor” pesticides by 84%.

Departmental IPM Programs

The Department of Agriculture has revised its noxious weed program and will be concentrating efforts on contracted work for parkland and municipalities within the County.

Because of the drought, Argentine ants were a particular problem for the Facilities Division. The lack of food and water outside forced ants indoors in large numbers. Pestec, the County’s structural IPM Contractor, used baits coupled with education for County staff to combat the ant invasions.

The Roadside and Flood Control Maintenance Division continues to incorporate grazing into its vegetation management program. This year it used goats to abate weeds on approximately 436 acres and is increasing its knowledge and experience with this management tool. Drought conditions continue to select for weedier and more difficult to control species along the roads and flood control channels. The extremely dry soil conditions have prevented the growth of some weeds, and without competition, the hardier weeds have more room and freedom to grow.

History of the IPM Advisory Committee

From 2002 to 2009, an informal IPM Task Force met to coordinate implementation of the IPM Policy that was adopted by the Board of Supervisors in November 2002. The Integrated Pest Management (IPM) Advisory Committee, a formal body, was created by the Board of Supervisors in November 2009. This report is the sixth annual status report from the IPM Coordinator and the IPM Advisory Committee.

Background on the IPM Advisory Committee

Purpose of the IPM Advisory Committee

The purpose of the Committee is to

1. Protect and enhance public health, County resources, and the environment;
2. Minimize risks and maximize benefits to the general public, staff, and the environment as a result of pest control activities conducted by County staff and contractors;
3. Promote a coordinated County-wide effort to implement IPM in the County in a manner that is consistent with the Board-adopted IPM Policy;
4. Serve as a resource to help the Agriculture and Public Works Departments and the Board of Supervisors review and improve existing pest management programs and the processes for making pest management decisions;
5. Make policy recommendations upon assessment of current pest issues and evaluation of possible IPM solutions; and
6. Provide a forum for communication and information exchange among members in an effort to identify, encourage, and stimulate the use of best or promising pest management practices.

Members of the IPM Advisory Committee

Currently the Committee has a total of 13 seats consisting of voting and non-voting members.

The 8 voting members include

- One representative from Contra Costa Health Services,
- One representative from the County Storm Water Program,
- One representative from the County Public and Environmental Health Advisory Board,
- One representative from the County Fish and Wildlife Committee,
- One representative from an environmental organization, and
- Three at-large members of the public.

The 4 non-voting members include

- A representative from the Agriculture Department,
- Two representative from the Public Works Department (Facilities Division and Maintenance Division), and
- One representative from the County's pest management contractor

The Committee also has one public member alternate who only votes if one or more of the three at-large public members, the PEHAB representative, or the Fish and Wildlife representative is absent from a meeting.

IPM Advisory Committee Priorities for 2015

The IPM Advisory Committee focused on the following three IPM program features:

- A. IPM decision-making—documenting pest management decisions in County IPM programs
- B. Grounds Division weed management and sustainable landscaping—preparing recommendations for the Board of Supervisors
- C. Bed bug management in the County—researching legislation in other jurisdictions and preparing a recommendation for the Board of Supervisors regarding a County ordinance

The Committee formed two subcommittees to work on these priorities, the Weed subcommittee and the Bed Bug subcommittee.

2015 Accomplishments of the IPM Advisory Committee and the IPM Coordinator

Accomplishments of the IPM Committee

The IPM Advisory Committee (the Committee) held 6 regular meetings in 2015. The subcommittees held a total of 9 meetings to address the above priorities. The IPM Coordinator serves as staff to the Committee and the two subcommittees. The accomplishments of the IPM Committee and its subcommittees are as follows:

Priority A: IPM Decision-Making

Through the work of the Weed subcommittee, the IPM Advisory Committee

1. Gained a detailed understanding of the complexities involved in making pest management decisions about grazing for weed control and the degree to which these decisions are site specific and require highly specialized experience and knowledge, and
2. Reviewed and provided suggestions for improvement to a decision-making document from Public Works Roadside and Flood Control Channel Maintenance Division on when and how to use goats for weed management.

This detailed text document follows a form devised by the IPM Coordinator and the former Decision-Making subcommittee. Decision-making documents are considered current as of the date on the document and may be updated in the future.

See Attachment A for the decision making document and see Attachment B for the Weed subcommittee's final report.

Priority B: Grounds Division Weed Management and Sustainable Landscaping

Through the work of the Weed subcommittee, the IPM Advisory Committee

1. Reviewed the workings of the Grounds Division, including funding and staffing issues, learned about problematic properties owned by the County, and heard a description of the Grounds Manager's plan to convert turf on County grounds to drought-tolerant landscaping to save water and comply with the Governor's mandate;
2. Gained an understanding of the complexities of managing County landscapes and the challenges faced by the Grounds Division; and
3. Developed the following recommendations for the Board of Supervisors
 - a. Develop a Countywide policy to convert existing turf to drought-tolerant, low-maintenance landscaping;
 - b. Provide funding for sustainable landscaping projects;
 - c. Develop a policy that facilitates funding of projects that might save money in the future but require upfront costs; this will allow the Grounds Division to make long-range plans for County landscapes;
 - d. Make changes in the wording of the County's Landscape Standards to facilitate long-range planning and reinforce the minimal use of turf and the maximal use of drought-tolerant and native plants; and
 - e. Require landscape designs to be reviewed and approved by the Grounds Division with regard to sustainable maintenance and long-term viability of the landscape.

See Attachment B for the Weed subcommittee final report and details of the recommendations.

Priority C: Bed Bug Management in the County

Through the work of the Bed Bug subcommittee, the IPM Advisory Committee

1. Researched bed bug legislation across the country;
2. Compiled a list of the best provisions of legislation in other jurisdictions;
3. Reviewed a current bed bug bill in the California legislature; and

4. Prepared a draft ordinance for the consideration of the Supervisors in the Transportation, Water and Infrastructure Committee.

See Attachment B for the Bed Bug subcommittee's final report and draft ordinance.

Accomplishments of the IPM Coordinator

In addition to staffing the IPM Advisory Committee and working on the three subcommittees, the IPM Coordinator accomplished the following:

Bed Bugs

The common bed bug continues to be one of the most serious pests in the County, a pest that has provoked citizens to misuse pesticides to an alarming extent. Pesticides do not solve the problem, and in many cases make the problem worse. We increasingly see bed bugs affecting the citizens of Contra Costa who have the fewest resources to combat them.

Continued increase in bed bug calls

There is a sense that the bed bug problem is increasing in the County, but this is anecdotal since there is no coordinated effort in the County to collect data. The IPM Coordinator records each call for advice, but it is unclear how many calls other staff in the County are receiving that are not forwarded to the IPM Coordinator. We also have no way of knowing how many calls city staff receive. In 2015, the IPM Coordinator investigated by telephone (with the help of the Bed Bug Task Force) 73 bed bug complaints (compared to 42 last year).

A substantial number of complaints continue to come from West County. There are increasing numbers of complaints from Pittsburg and Antioch, as well as Walnut Creek, and it is generally acknowledged that there are numerous apartment complexes in Concord with severe infestations throughout the buildings. Some of these complexes have been infested for 5 or more years.

Research to help low income residents of apartment complexes

The County continues as a cooperator on the U.C. research grant to compare the efficacy of IPM methods and conventional methods of bed bug management in multi-unit dwellings. Among the collaborators in this research are the University of California Cooperative Extension, U.C. Riverside Department of Entomology, the Los Angeles and the San Francisco Housing Authorities, the Monument Impact in Concord, three pest management companies, and the Contra Costa IPM Coordinator. Two field study sites have been selected in Contra Costa County: Pestec (the County's structural IPM contractor) will be working in an apartment complex in Concord and Orkin will work in a complex in Bay Point. U.C. researchers inspected all units in each apartment complex to gather baseline data for the study. Both pest management companies have also completed inspections of all the units in their apartment complexes and have begun treatments. Each company designed its own plan for managing bed bugs in its apartment complex. At the end of the study, U.C. researchers will evaluate the effectiveness of each program.

Nati Flores of Monument Impact and U.C. Urban IPM Advisor Andrew Sutherland have provided at least one education session to tenants in the two Contra Costa apartment complexes, but the pest management companies are free to provide additional education.

To educate County staff and the public about bed bugs, the IPM Coordinator

- Continued to organize and staff the County's Bed Bug Task Force; the Task Force meets every two months and advocates for increasing public awareness of bed bug problems and for developing sound bed bug management policy throughout the County;
- Accompanied Environmental Health Inspectors on a bed bug investigations at Love a Child Mission in Pittsburg;
- Worked extensively with Supervisor Andersen's office and members of the County Mental Health Commission on a serious and long-standing bed bug infestation in Riverhouse, a senior and disabled residence in Martinez (the issues are still unresolved);

- Met with Sandy Rose, Mental Health Housing Services Coordinator, to discuss bed bug prevention measures for their offices and their staff;
- Created additional bed bug fact sheets in English and in Spanish for the County's bed bug website and made improvements to the website that were suggested by the Bed Bug subcommittee;
- Provided a bed bug awareness and prevention training in March to around 20 staff members at Shelter, Inc in Martinez; toured their facility and made suggestions about bed bug prevention;
- With Pestec staff, provided a bed bug awareness and prevention training for 23 Contra Costa Adult Protective Services (APS) staff in November; and
- Prepared fact sheets and gathered other information specifically for APS staff and their clients.

Advice and Outreach on IPM

The IPM Coordinator

- Worked with County Facilities Division staff on an unusual termite infestation in a ground floor hallway at 597 Center in Martinez (see photo at right). The termites entered through a crack in the slab and built tubes up into the air in the middle of the hallway. There was no wood for them to eat nearby, so this was an exploratory mission for the termites. The infestation was treated with spot applications of Altriset® (chlorantraniliprole) that were injected into holes drilled into the concrete slab surrounding the termite tube;
- Provided an educational session on fleas for staff at 1220 Morello;
- Provided on-going advice along with review of educational materials for IPM training in child care settings as part of a project of the Center for Environmental Research and Children's Health at U.C. Berkeley;
- Worked with the City of El Cerrito and Beth Baldwin of the Contra Costa Clean Water Program to complete a comprehensive IPM guidance document for Contra Costa municipalities (see <http://www.cccleanwater.org/wp-content/uploads/2015/08/IPM-Guidance-Manual-Final-June-2015-print-ready-w-bookmarks-blue-links.pdf>) and provided an IPM training session in June for municipal staff from around the County;
- Met with the Alameda County IPM Coordinator to provide advice on his program;
- Attended regular meetings of the Head Start Health and Nutrition Services Advisory Committee to report on IPM issues; and
- Responded to a number of requests for pest management information from County staff and citizens.



Subterranean termite tube emerging from a crack in the slab under the carpeting of a ground floor hallway at 597 Center in Martinez

Conferences and Trainings Attended

- Bed Bug Global Conference
- Two EPA bed bug webinars
- An EPA webinar on managing vertebrates
- County Advisory Body Training

2015 Department IPM Program Highlights and Challenges

General Information about the Departments

Each Department maintains an IPM Plan that covers their pest management goals, sites under management, decision making processes, key pests and best management practices, environmental stewardship, and training requirements.

In order to help new IPM Committee members understand the working of each department, the IPM Coordinator has developed Department Overviews that cover department responsibilities in general and pest management responsibilities in particular, funding sources and budget, pests under management and the methods used to manage them, and department challenges.

Each of the County's pest management programs must keep records of pesticides used and submit a report monthly to the Agriculture Department for transmission to the state Department of Pesticide Regulation. Once a year, the IPM Coordinator collates and analyzes this information for the annual report.

Agriculture Department

IPM Program Highlights

- The Department attended all Weed subcommittee meetings.
- Changes in the Department's noxious weed program
For more than 30 years, the Department has actively helped ranchers in Contra Costa County control artichoke thistle and purple starthistle on privately owned rangeland. This past season the Department began to concentrate their efforts on contracted work for parkland and municipalities within the County. The Department has successfully reduced artichoke thistle and purple starthistle to a level at which private landowners can now manage these weeds on their own. The Department continues to advise landowners who lease property to cattlemen to include noxious weed control in their lease agreements to encourage ranchers to maintain a weed management program.

The Department's noxious weed program now involves 5 target terrestrial species. This year the Department surveyed 63,663 acres and treated a total of 152 net acres.

Treatment involved hand removal, mechanical removal and targeted treatment with low toxicity herbicides. With rare exception, pesticide treatment involved highly focused spot spraying using backpack sprayers. Approximately 40-50% of staff time was spent in surveying and monitoring, with the remainder being spent on treatment actions.

- Artichoke Thistle (*Cynara cardunculus*)
The Department surveys and treats properties under contract for East Bay Regional Park District and Contra Costa Water District. This year staff surveyed 61,547 acres and treated 113 net acres for artichoke thistle at 56 sites.

Artichoke thistle is a highly invasive, non-native perennial weed that displaces herbaceous plants and annual grasses, decreasing the value of agricultural land, open space, and wildlands. Horses and cattle will not consume this thistle, and at high densities, the formidable spines on the leaves and stems and on the bracts around the flowers make it impossible for animals or people to walk through stands of the weed.

In 1979 Contra Costa County was identified as one of the most heavily infested counties in the state. At that time, at least 100,000 acres of land were infested with artichoke thistle to one degree or another. In that year, the Department began their management program in cooperation with property owners by using ground rigs and helicopters to spray large swaths of land. The artichoke thistle infestation has been



Rangeland infested with artichoke thistle

reduced so much that staff primarily spot treat individual plants using a backpack sprayer. Because seedlings form deep, fleshy taproots within the first year, mechanical or hand removal (digging out the plants) is cost-effective only in a very limited area with a small number of very young plants. Mowing and burning are neither practical nor effective.

- Japanese dodder (*Cuscuta japonica*)
Staff surveyed 32 historically infested sites and hand removed Japanese dodder from one site.

Japanese dodder is an aggressive parasitic plant that has the potential to severely alter the composition and function of riparian areas. It also affects ornamental plantings and agricultural crops. Japanese dodder is native to Southeast Asia and was first discovered in the county in 2005.



First Japanese dodder find in CCC, 2005

- Red sesbania (*Sesbania punicea*)
This was the tenth year of red sesbania removal at the

Red Sesbania



primary infestation site of Kirker Creek, Dow Wetlands. Staff surveyed 10 acres there and removed 475 plants by hand.

Red sesbania is a small tree that has a high potential for environmental damage by displacing native plants and wildlife in riparian areas. Red sesbania is native to South America and is poisonous to humans, livestock, and many native vertebrates. It is invading riparian areas locally, and in the American River Parkway in Sacramento County, about \$300,000 has been dedicated to its control. Red sesbania was first detected in California about ten years ago.

- Purple starthistle (*Centaurea calcitrapa*)
Under contract to the East Bay Regional Park District, the Department surveyed 2,086 acres and treated 35 acres for purple starthistle at 15 sites.

This weed is a highly invasive non-native biennial that displaces annual grasses, desirable vegetation, and wildlife and decreases the production value of agricultural land. The plant also has allelopathic properties, which means it produces chemicals that inhibit the growth of other vegetation. Its large spines and high densities can form an impenetrable barrier to wildlife and livestock in open rangeland as well as to horses and hikers in parkland. Seed can remain viable in the soil for ten or more years.



Purple Starthistle

Purple starthistle in Contra Costa County is not as widespread as artichoke thistle. However, being a prolific seed producer, it has the potential to become as large scale a problem as artichoke thistle. Early identification and eradication of isolated populations is key to preventing its establishment in uninfested agricultural lands.

- Russian knapweed (*Acroptilon repens*)

Under contract, the Department surveyed 30 acres of East Bay Regional Park land and treated 4 acres at one site.



Russian knapweed at Discovery Bay

Russian Knapweed can grow in very dense monocultures. It displaces native vegetation and takes rangeland out of production. The root system is extensive and aggressive, and small root fragments can sprout to form new plants. Seed is short-lived and does not appear to be viable for more than three or four years. Russian knapweed is poisonous to horses causing “chewing disease” and liver failure. Hand removal is ineffective.

- Critical infrastructure protection

The Department continues to protect critical infrastructure including levees, earthen dams, railroad beds, and roadways from damage by ground squirrels. This is a management program, and the Department is not seeking to eradicate ground squirrels from Contra Costa County. The goal is to maintain a 100 foot wide buffer around the infrastructure, including along sections of road, by treating a swath about 15 feet wide. Ground squirrel burrowing is the single biggest threat to California

levees. Burrowing can compromise earthen embankments and create pathways for water leakage that can undermine the structural integrity of levees, as well as earthen dams and railroad embankments. Burrowing and the resulting pathways for water erosion can also cause damage to, or sudden failure of, roadsides and other structures.

The Department continues to use its modified ground squirrel treatment procedure. Staff work in teams of two for safety and efficiency. They apply untreated rolled oats on a Friday to areas that have been treated in the past and to areas around infrastructure where there is suitable habitat. Over the weekend, ground squirrels find and begin to eat the untreated grain. On Monday when staff return to the pre-baited areas, it is obvious where ground squirrels are actually foraging. Only those areas are treated with poison grain. One staff member drives while the other operates the bait spreader to apply bait more precisely and only where ground squirrel activity is observed. On Wednesday the team returns to treat a second time, and on Friday they survey treated areas again and remove any ground squirrels that have died above ground. It is rare that the Department finds carcasses above ground, something that has been confirmed by research and other ground squirrel baiting programs.

In Fiscal Year 2014-15, the Department surveyed and treated a total of 137 sites, 62 of which are owned by the County. The total amount of untreated grain used was 10,500 lbs, and 6,365 lbs was used on County property. The Department used a total of 27,369 lbs of diphacinone treated grain, of which 15,370 lbs were used on County sites. The grain contains either 0.005% or 0.01% diphacinone, a first generation anticoagulant. The Agriculture Department used a total 2.72 lbs of the active ingredient diphacinone throughout the County.

- Exotic pest prevention

The Agriculture Department is the County’s first line of defense against invading pests including insects, plants, and plant diseases. Every day staff perform inspections on incoming shipments at destination points, including nurseries, the post office, and express carriers (UPS, FedEx and others) to look for quarantined plants as well as pests that can hitchhike unnoticed on plant material and other items such as household goods.

In 2006, the Department was the first in the state to incorporate dog teams into parcel inspection. Since then a number of other counties have followed Contra Costa’s lead. The dogs greatly speed inspections and have significantly increased detections of quarantined plants and exotic pests. The dog teams are a shared resource with other Bay Area counties that do not have the expertise or resources to maintain an active surveillance program; therefore, as a result of Contra Costa’s initiative, pest detections in those counties have increased.

This year the Department inspected 47,556 shipments and rejected 245 after finding various pests.

The Department also deploys and services numerous traps for the purpose of early detection of more than 17 different serious insect pests. This year the Department deployed 5,417 traps, and staff serviced those traps 60,817 times.

- Pesticide use reporting

This year the Department has changed the way it reports pesticide use. Since the Department acts primarily as a contractor to apply pesticide for other County departments, park districts, and municipalities, the Department has issued a permit number or operator identification number (OID) to those entities. On the Pesticide Use Reports, the Agriculture Department will be listed as the applicator and the pesticide use will be entered under the permit number or OID number for the entity.

Agriculture Department Challenges

- Ground squirrel control alternatives

The department continues to search for alternatives to treated grain bait. Unfortunately, raptor perches and live trapping of ground squirrels have proved to be ineffective and/or too costly. Ground squirrels are native to this area and will never be eradicated. Since the Department aims to create a fairly narrow buffer zone around infrastructure, it is inevitable that in areas with ground squirrels pressure outside of the 100 ft buffer, ground squirrels will eventually move back into the burrows left vacant by the squirrels that have been killed, although this happens quite slowly. This leads to a yearly management program. Altering the environment to prevent ground squirrel burrowing is difficult because the squirrels favor human-built infrastructure as sites for their burrows.

- Noxious weed control on private land

The Department will work with landowners over the next few years to help them transition to managing their own noxious weeds instead of relying on the County.

Public Works Facilities Division

IPM Program Highlights

- A representative from Pestec sat on the Bed Bug subcommittee and the County's Bed Bug Task Force.

- Rodent-proofing at the Martinez Detention Facility

In April of 2014, Pestec installed metal flashing to the exterior of the loading dock where there was a large gap near the wall. Roof rats were suspected of entering the building there and traveling up into the ceiling above the medical units. There had also been rat sightings in the kitchen, and Pestec was removing rats from snap traps and glue boards weekly. (Glue boards were used in the kitchen because inmates work there, and the Sheriff will not allow snap traps where inmates have access to them.)

Since April 2014, rodent activity has completely ceased inside the building. Pestec has removed all glue boards from inside the building because they are no longer needed.

- No pests at Contra Costa Regional Medical Center

No pests have been found at the hospital for many months. When Pestec began working for the County in 2010, there were rats on a number of floors, but because of Pestec's successful trapping program, rodent activity in the buildings has ceased.

- Increased ant infestations in County buildings

Dry soil and cut backs in irrigation forced ants into buildings to look for both food and water. A number of County buildings experienced serious and repeated Argentine ant infestations, especially in the late summer and early fall. At the West County Detention Facility, the persistent invasions required granular baits around the exterior of the building, gel baits in the cracks on the interior, and large liquid boric acid bait stations on the perimeter of some of the buildings where inmates had no access. These bait stations were constructed from covered buckets that were stuffed with a matrix for the ants to crawl on and filled

with a sugar solution containing 1% boric acid. The buckets had holes near the lids for ants to access the bait, and the buckets were buried in the ground up to the holes. These large bait stations pulled in huge numbers of ants from the surrounding area, so colonies were wiped out for some distance from the Detention Facility buildings.

- Drain flies at Contra Costa Regional Medical Center
When the floor around a drain in the kitchen was opened for repairs, numerous small flies began appearing in the kitchen. Soil was exposed when portions of the concrete floor were removed, and most likely there had been a leak in the drain, and flies had been breeding in the soil that was contaminated with the drain water. To solve the problem, Pestec used InVade® Bio Foam, a product that contains microbes that consume organic scum that grows in and around drains, and they also sealed off the drain area until the concrete was replaced.
- Serious flea infestation at 1220 Morello in Martinez
Early in the year, many staff members at 1220 Morello were complaining of flea bites. Pestec followed their standard protocol of inspecting the offices, educating staff about the problem, monitoring with flea traps, and treating with a cedar oil that kills fleas on contact and with an insect growth regulator that prevents flea larvae from maturing into adult fleas. It could not be determined definitively where the fleas were coming from, but Pestec believed they could have been coming in on rats. After the pesticide treatment, Pestec closed a hole in the exterior, and the building staff had no further complaints.
- Structural IPM program pesticide use
In FY 14-15, 15.8 lbs of pesticide active ingredients were used in approximately 2.75 million square feet of County buildings. This is 10 lbs more than last fiscal year and is entirely due to the severity of the ant infestations in the County. The pesticides used by Pestec are primarily deployed as baits in bait stations or in cracks and crevices. Pestec continues to successfully manage rats and mice exclusively with traps, sanitation, and pest proofing.
- Bed bugs in County buildings
Because of staff and client vigilance, a strict intake protocol, and special cleaning procedures, neither the Concord nor the Brookside homeless shelter has experienced a bed bug infestation this year. The chances of new introductions of bed bugs to a shelter are very high with the daily influx of clients who sleep at the facility, but with alert staff, any new introductions will be quickly found. Strict adherence to the prevention procedures will make it unlikely that either shelter will experience a large or prolonged infestation.

Other County buildings, such as the hospital and offices with waiting rooms, are at risk for bed bug infestations, and County staff must continue to be vigilant. Over the past several years staff at a few County buildings have reported seeing bed bugs. Pestec was called and the areas carefully inspected but none were found. To date we have not found evidence of bed bugs at any building except the Concord Homeless Shelter.
- Bed bug training for Adult Protective Services staff
In November, Pestec and the IPM Coordinator provided a workshop on bed bug awareness for Adult Protective Services (APS). APS staff are encountering more and more bed bug problems among the population they serve, and they want to know how best to help their clients. 23 number of people attended the training. Pestec and the IPM Coordinator met with the APS acting manager to discuss informational aids for staff including a fact sheet tailored to APS clients.

Facilities Division Challenges

- Pest exclusion in County buildings
This continues to be a challenge, but the Facilities Division is doing what they can with their staffing and schedule. As we saw this year at the Martinez Detention Facility, pest proofing has a significant impact on reducing pest problems.

- Bed bugs in County buildings
Bed bugs are particularly difficult and costly to control. As bed bugs become more prevalent, it becomes more likely that people will bring bed bugs into County buildings. At this point, awareness, education, and prevention are critical.

Public Works Grounds Division

IPM Program Highlights

- The Division participated in the work undertaken by the Weed subcommittee of the IPM Advisory Committee
The Grounds Division provided research, information, and analysis to the committee on funding issues for the Division and the limitations that the funding structure places on making long term investments in sustainable landscaping around County buildings. Grounds Division staff also provided information to the committee on turf conversion in the County and feedback on the committee’s sustainable landscaping recommendations to the Board of Supervisors.
- Turf conversion projects around County buildings
This is the fourth and most severe year of drought in California. The continuing drought presents the perfect opportunity to convince departments to convert their lawns to drought-tolerant landscaping with widely spaced plants surrounded by wood chip mulch. Turf conversion
 - Saves water;
 - Allows the County to be an example for its citizens;
 - Saves on maintenance costs since turf requires a high level of maintenance;
 - Allows maintenance staff to spend the time saved on turf on other crucial maintenance tasks including managing weeds by physical means, such as hand pulling, as opposed to herbicide applications;
 - Reduces herbicide use in the landscape since reduced irrigation and mulch will greatly suppress weed growth;
 - Reduces other pesticide use since turf is susceptible to many pests and diseases;
 - Reduces the possibility of citizen exposure to pesticides since the risk of exposure is greater in landscaping than for example, along roadsides;
 - Reduces greenhouse gas emissions from turf maintenance equipment and from pumping water to irrigate the turf; and
 - Moves County landscapes in the direction of greater sustainability.

The Grounds Division chose the Pittsburg Health Center at 2311 Loveridge in Pittsburg as the pilot project. About 70% of the turf was removed and replaced with drought-tolerant landscaping and mulch. The conversion is projected to save one million gallons of water per year.



Pittsburg Health front lawn before turf conversion



Pittsburg health front lawn after turf conversion



After turf was removed, the ground was covered with permeable weed barrier fabric to prevent weed growth, drip irrigation lines were laid on top of the weed fabric, and plants were installed through holes cut in the weed barrier. When planting was complete, the whole area was mulched with several inches of woodchips to conserve moisture and reduce weed growth on top of the weed barrier.



“Saving Water for Contra Costa” signs were placed around the property to inform citizens and staff.

At the Pittsburg Health Center, squirrels had for years been drinking from small puddles created by the lawn sprinklers, and when the sprinklers and lawn were removed, the squirrels began chewing through the drip irrigation lines to get water. Staff arrived early one morning to find geysers shooting up in the newly landscaped areas. Lines had to be replaced and staff began setting out bowls of water so the squirrels would stop chewing on the drip lines.

The Board of Supervisors has approved two contracts with local landscaping firms for \$2 million each to install drought-tolerant landscaping around County buildings from July 1, 2015 through June 30, 2018.

- Juvenile Hall turf conversion

This spring, John Gularte in the Grounds Division worked with Juvenile Hall youth to replace 5,500 sq ft of lawn with *Festuca glauca*, a clump forming ornamental grass. This fine leafed grass can tolerate drought, neglect, and poor soils.

The Grounds staff removed the existing turf and prepared the soil. The youth then installed a weed barrier, dug 700 holes, and planted the *F. glauca* plugs. Grounds staff brought in 60 cu yds of woodchip mulch, and the kids spread the mulch over the planting area. The youth are involved in the ongoing maintenance of the newly planted area, and regularly hand pull weeds.



Festuca glauca

- Drought and water use

Two years ago, the Division met the governor’s current mandate for watering only two days a week, and staff continue to fix irrigation problems, change sprinkler heads, remove excessive vegetation, and mulch as much as possible. This year when the Division cut off all water to turf areas, staff noticed that nearby ornamentals were suffering from lack of water. Although the irrigation to the ornamentals had been off for years, the plants were being sustained by the overspray from watering the turf. In order to keep the plants alive, staff had to repair the ornamental irrigation lines and begin watering the plants once a week.

The Division is finding many drought stressed plants because of the water restrictions. Trees in particular are suffering. The Division is seeing many dying trees and has been removing them and replacing them with more drought-tolerant species wherever replacement is feasible. Redwood trees all around the County are particularly vulnerable and will slowly die. Since they grow best in the fog belt, they should not be replanted outside that area.

- High quality mulch from pallets and dead trees

In June, the Grounds Division created 600 cu yds of woodchips from trees that were downed in the winter storms. The Grounds' tree removal contract includes transport back to the Grounds Corporation Yard so the logs can be easily chipped. In August, Grounds chipped pallets from the County's solar projects and logs from the Public Works tree removal program and produced 700 cu yds of premium mulch.

Considering that high quality wood chips cost \$32/cu yd delivered, the Division created \$22,400 worth of mulch for the \$4200 it cost to chip the wood. The Grounds manager has arranged with Davey Tree to deliver logs to the Corporation Yard



Logs ready for chipping



Pallets ready for chipping

that are too big for Davey Tree's chipper and is working with waste haulers to divert to the County some of the pallets from their pallet routes for a continuing supply of high quality, low cost wood chips.



Pallets being ground into mulch



Finished mulch piles

- Division staffing has increased

Currently the Division has 18 full time permanent employees, and is asking for 5 temporary employees. Division staff numbers are slowly rising, which means that as funding available for landscape maintenance increases at County buildings, the Division can provide the increased maintenance that is budgeted.

- Managing gophers with CO₂

Several years ago the Division used the Rodenator to remove gophers that were beginning to undermine the foundation at the Public Works Administration building on Glacier Drive in Martinez. This device creates an explosion underground and the concussion kills any nearby gophers. This treatment worked very well and no new gophers have been seen at the Administration building. However, this device sounds like a gunshot and can be quite disturbing to building occupants and nearby County residents.

Because of understaffing and underfunding, the Division has for many years largely ignored gophers. Last year the Division hired a contractor with a device that suffocates gophers by injecting CO₂ into their burrows. This treatment worked well but cost about \$300/application; consequently, the Division



The Eliminator for managing gophers

purchased its own CO₂ device, called the Eliminator, and has been using it for the past year. Its limitations are 1) it works best in moist soil so that the CO₂ doesn't leak out and 2) it does not collapse the burrows so that neighboring gophers have moved into the areas that have been cleared.

- Pesticide use decreased in FY 14-15

Five years ago, the Grounds Division consciously decided not to use any insecticides, miticides, fungicides, or rodenticides in their work. The Division has chosen to manage arthropod pests and plant diseases in County landscapes solely with good horticultural practices. If plants are severely affected, they are removed.

Herbicides are the only pesticide used by the Division, and this year, staff used 154 fewer pounds than in FY 13-14. As noted last year, the Division is continuing to try to improve the condition of many of the County's properties in order to move away from crisis management and back to preventive maintenance. For a number of years the lack of funding made it impossible to properly manage weed problems around County buildings and in the Special Districts the Division is responsible for. This is now changing, but weeds that went unmanaged for years left huge amounts of seed that will produce large crops of weeds for many years to come.

Grounds Division Challenges

- Staffing needs

Grounds now has 18 permanent employees, which has made it possible for the Division to accomplish much more of the work they have funding for. The Division still needs 5 more temporary employees. These employees were requested in July, but have not been hired yet because understaffing at the County's Human Resources Department continues to cause hiring bottlenecks throughout the County.

- Drought stress in the County

The Division is dealing with a large number of diseased, stressed, and dying trees. Many redwoods in the County are partially dead and it could take from 5 to 10 years for them to die completely. Unless failing trees pose a hazard, the Division will take them down over time since it will be easier aesthetically and financially. It has been challenging to try to drought-proof landscapes, but the woodchips the Division is producing play an important role.

Public Works Department Roadside and Flood Control Channel Maintenance Division

IPM Program Highlights

- The Division participated in the work undertaken by the Weed subcommittee of the IPM Advisory Committee
Staff prepared a decision-making document on when and how to use goats for weed management (see Attachment A). The subcommittee reviewed the document and made suggestions for additions and changes to the final document. This document makes the Division's goat grazing program more transparent, will serve as part of the Division's institutional memory, and can be used as a training document.
- Annual habitat assessment refresher training
This year, 51 Public Works Maintenance employees attended the annual refresher training in habitat assessment for endangered and threatened species in order to comply with the California Department of Fish and Wildlife (CDFW) Routine Maintenance Agreement (RMA). The RMA stipulates that before work can commence in an area, an assessment must be conducted to identify endangered species habitat. In FY 14-15 crews that were trained to identify potential habitat spent a total of 792 hours performing habitat assessments. As endangered species are identified, they are reported to CDFW, which then provides County staff with guidelines to move forward with work. These guidelines may include full time monitoring of the jobsite by a professional biologist.
- Flood control vegetation and erosion management using California natives
The County Flood Control District is partnering with The Restoration Trust, an Oakland-based non-profit organization promoting habitat restoration and stewardship, in a native planting experiment along Clayton Valley Drain (near Hwy 4 adjacent to Walnut Creek). The study is examining the survival of several California natives: Santa Barbara sedge, (*Carex barbarae*), common rush (*Juncus effusus*), Baltic rush (*Juncus balticus*), field sedge (*Carex praegracilis*), and creeping wild rye (*Leymus triticoides*). Planting occurred in December 2013 and December 2014. Santa Barbara sedge, common rush, Baltic rush, and field sedge were planted on the lower terrace near the creek and the creeping wild rye was planted on the slopes of the channel.



Carex barbarae

This spring, at the request of The Restoration Trust, the Division treated the area for broadleaf weeds to reduce competition and provide the native plants with an advantage.



Juncus effusus

The native species that were planted spread from underground rhizomes that anchor the soil and provide erosion control. They are perennial species that stay green year around and thus are resistant to fire. The plants are compatible with flood control objectives since they do not have woody stems, and during flood events, they lie down on the slope which reduces flow impedance. They are not sensitive to broadleaf-specific herbicides, and unlike non-native annuals, they provide carbon sequestration and remove as much as ½ ton of carbon per acre per year.

The Restoration Trust will monitor these plots until 2018 to assess native plant survival and the degree to which they compete with the non-native annual species. The County Flood Control District managed and funded watering throughout the 2013-2014 and 2014-2015 winters. Without this effort, the plants would likely have died. The Restoration Trust again monitored the area in spring and summer of 2015 and found that given the lack of rainfall, the site is still doing adequately. The creeping wild rye planted along the

channel slope is performing particularly well and has begun to spread. A normal rainfall year will bring much needed relief to the site and will allow for a better analysis of native plant survival.

- Grazing as a vegetation management tool

The Division continues to fine tune its use of grazing to improve the tool's effectiveness and economic viability. Using grazing as a management tool is complicated and very dependent on site-specific conditions. Grazing is not appropriate in all situations and could not, for instance, be used on the side of County roads without endangering both the animals and motorists. Many factors raise or lower the cost per acre for grazing, including the size of the parcel (at larger sites the cost of moving the goats in and out is spread over a number of acres), whether the animals can easily enter the site, the amount of fencing necessary, how many times the animals must be moved within the job site coupled with the ease with which that can be done, whether water is available or must be trucked in, and the season in which the animals are being used (costs are lower when demand is lower, e.g., in fall and winter).



Pine Creek (City of Walnut Creek) before grazing

- Ideal grazing situations for fire prevention

The Division has found that the following situations are ideal for meeting fire prevention standards with grazing:

1. Sensitive sites with endangered or threatened species where mowing could kill animals and where herbicides are restricted;
2. Sites where access is difficult for people or machines;
3. Sites with steep slopes or uneven terrain that would have to be mowed by hand and that present dangerous working conditions for staff; and
4. Sites that are too wet for either hand or machine mowing.



Pine Creek (City of Walnut Creek) after grazing

- Areas not suited for grazing

1. One to two acre sites are not economical because of the cost of getting the animals in and out.
2. Unfenced areas along roadsides are not appropriate because of safety issues and because of the cost of fencing off a narrow band of land and continually moving animals along the road.
3. In the winter, grazing animals cannot be used on the rain softened creek banks and the ground adjacent to the banks because of the danger of causing erosion.

- Advances in grazing strategy

The Division is taking better advantage of the time after a site has been grazed. When goats remove vegetation, staff can inspect flood control facilities much more effectively. Staff have always monitored the integrity of the slopes and the presence of invasive and other problematic weeds, but when vegetation is very low, it is much easier to see the condition of the flood control facilities and easier to spot treat for hard to control weeds. This combination of grazing and herbicides is proving very effective.

In the last few years, the Division has coordinated with the grazing contractor to use County land as staging areas for goat herds in late summer and early fall. The County contracts for grazing on a certain portion of a creek, and then the contractor is allowed to use that area and the surrounding area as needed, with the approval of the Division, to stage animals between jobs for the County or other clients. The County is central to the area covered by the grazer so that animals need not be trucked back to their farm between each job. The County gains the benefit of free grazing on various creeks or detention basins.

- Grazing costs

By using goats in the off season (late summer through winter) and allowing the grazer to use County land for staging herds, the County has been able to bring down the overall cost per acre for the year. Not all sites are appropriate for these strategies, and while late season grazing has been beneficial for both the Division and the grazer, it does not mean that just any location can be grazed in the off season at a reduced price.

Peak season grazing is used mainly for fire prevention, but off season grazing in flood control channels has goals and benefits that are somewhat different. The reduction of vegetation

1. Lessens the late-season fire danger in the channels,
2. Allows for a more thorough inspection of the channels to comply with Army Corp of Engineers maintenance standards,
3. Allows staff to more easily see and treat invasive and other problematic weeds,
4. Reduces obstacles in the channels that could impede the flow of water during a rain event, and
5. Reduces cover and thus discourages homeless encampments.

Off season grazing benefits both the County and the grazer. It is less costly for the County because demand for grazing is low in the off season, and the grazing contractor has forage for the animals, which must be fed in the off season as well.

Cost of Peak Season Grazing for Fire Prevention

Fiscal Year	Acres Grazed	Total Cost for All Acres Grazed	Cost/Acre
12-13	74	\$88,100	\$1190
13-14	113	\$123,660	\$1094
14-15	190	\$161,700	\$854

Cost of Off Season Grazing

Fiscal Year	Acres Grazed	Total Cost for All Acres Grazed	Cost/Acre
13-14	162	\$37,302	\$230
14-15	209	\$35,802	\$171
15-16	246 (estimated)	\$72,002	\$292

- Grazing a permanent tool in the IPM toolbox

Grazing is now one of the Division's established tools for vegetation management. Grazing is not appropriate in every situation, but its use by the Division has been expanding and evolving to include quite a number of different objectives. In the years to come, the Division will continue to refine the decision making process for deploying grazing in order to increase effectiveness and economy.

- Fire fuel reduction challenges in 2015

Fire prevention weed abatement is time-sensitive, and historically the deadline was July 1. If weed abatement was not completed by that date, the County could incur fines from the fire districts. In FY 13-14, the dry weather forced the deadline to mid-May through June 1. This year fire districts were requiring weed abatement to be completed in some areas by May 1. The Routine Maintenance Agreement with the state Department of Fish and Wildlife stipulates that no work can begin in Contra Costa flood control channels prior to April 15. This year it was impossible for staff to complete all the mowing in the two to four week window mandated by the fire districts. Because some areas were mowed so early in the season, crews had to return to mow them a second time because vegetation had grown back.

The unpredictable and spotty rainfall this past winter caused pre-emergent herbicides to perform poorly, which meant the Division had to spend more time and herbicide on spot treatments of weeds throughout the season. Pre-emergent herbicides are used to suppress germination of weeds so that less herbicide is needed for control the rest of the year.

- Use of mulching has increased
Winter storms and drought killed or injured many trees this year. The Division chips prunings and dead trees into mulch that is being used more extensively along fencelines above flood control channels and in empty County parcels. Logs that are too large for the Division's chipper go to the Grounds Division for chipping and use on County landscapes.
- Buffer zones for certain pesticides enjoined by the courts
Several lawsuits brought by environmental organizations against the EPA have been temporarily settled by the delineation of buffer zones in and around habitat for a number of endangered or threatened species in the Bay Area. The Department continues to work within the guidelines of the injunctions to assess work sites and implement buffer zones before using any of the enjoined pesticides.

Roadside and Flood Control Maintenance Division Challenges

- Results of four years of drought
Drought conditions continue to select for the tougher and weedier species along the roads and flood control channels. The extremely dry soil conditions have prevented the growth of some weeds, and without competition, the hardier weeds have more room and freedom to grow. Crews are seeing an increase in stinkwort (*Dittrichia graveolens*), Russian thistle (*Salsola* spp.), and mare's tail (*Conyza canadensis*), all weeds that are difficult to control.
- Cost implications of regulations
Compliance with RMA requirements has considerable effect on the cost of operations. As mentioned above, work within CDFW jurisdiction requires a habitat assessment prior to start of work so that endangered species are not harmed. Crews again identified endangered species at a couple of job sites and consultation with CDFW resulted in using alternative work methods that were more costly.
- Cost implications of various management techniques
In FY 14-15, 69% of the Division's expenditures on vegetation management was spent on non-chemical treatment methods, while the number of acres treated non-chemically was 39% of the total acres treated (see the chart below for details).

Chemical treatments for creek banks in FY 14-15 were \$523/acre compared to \$176/acre last year. This is because the majority of the FY 14-15 treatments were spot applications, which are considerably more costly.

This year the safety requirements for mowing have increased. These measures will help prevent fires and injuries to workers but will increase the cost of mowing. The following are the new safety mandates from CalFire:

1. Crews must have access to a water truck or a 5 gallon backpack type water fire extinguisher.
2. A worker trained in using the fire-fighting equipment on the truck must be added to a mowing crew to continuously monitor the weather and serve as a lookout.
3. If the height of the vegetation requires that a worker scout the ground ahead of the mower, a separate person must be assigned to perform that function.
4. If the ambient air temperature reaches 80° F, the relative humidity is 30% or lower, or if wind speeds reach 10 mph or higher, mowing cannot begin or must stop immediately.

**A Cost* Comparison of Vegetation Management Methods for Roadsides and Flood Control Channels
Fiscal Year 2014-2015**

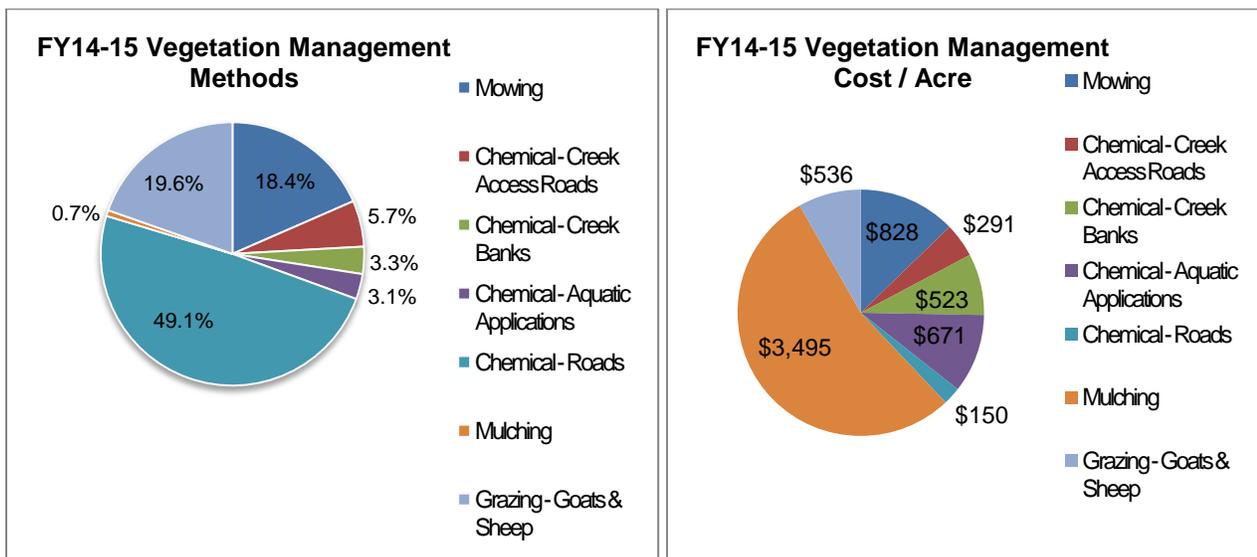
Vegetation Management Method	Acres Treated	% of Total Acres Treated	Total Cost for all acres treated	Cost/Acre	% of Total Cost for all acres treated
Chemical Treatment - Roads	1091	49%	\$163,322	\$150	18%
Right of Way Mowing	410	18%	\$339,516	\$828**	37%
Chemical Treatment – Creek Access Roads	126	6%	\$36,695	\$291	4%
Chemical Treatment – Creek Banks	57	3%	\$38,851	\$523 [§]	4%
Grazing – Peak and Off Season	436	20%	\$233,702	\$536	26%
Chemical Treatment - Aquatic Applications	69	3%	\$46,318	\$671	5%
Mulching	16	1%	\$55,917	\$3,495	6%
Totals	2222		\$914,321		

* The cost figures above for each method include labor, materials, equipment costs, contract costs (for grazing), and overhead, which includes training, permit costs, and habitat assessment costs. Licensing costs for staff members are paid by the individual and not by the County. The cost of the Vegetation Management Supervisor when he supervises work is not included in any of the figures, but is comparable among the various methods.

** The cost of right of way mowing increased this year due to the new fire prevention regulations (FY13-14=\$762/A; FY14-15=\$828/A).

[§] The cost per acre for chemical treatment on creek banks is far greater this year than last (\$523 vs \$176) because the majority of the work was spot treatments, which are much more costly.

With limited budget, staff, and equipment, the Division must make strategic decisions about where to deploy their resources in order to meet their mandates of managing vegetation for fire and flood prevention and for road safety. The Division is managing weeds in a biological system, and factors such as weather, rainfall, weed growth patterns, timing for optimum weed susceptibility to the treatment method, and threatened and endangered species issues must also be factored into management decisions. The pie charts below further illustrate the cost of various management techniques and show how the Division has allocated resources.



Note: The legend to the right of each pie chart identifies slices starting from 12 o'clock and continuing clockwise.

- Weather

Mowing, as well as the application of herbicides, is highly dependent upon weather conditions. Weather can affect when herbicides can or must be applied and can also affect when mowing can or should occur. Weather can substantially alter the size and type of the weed load or its distribution over time and space.

The Department has a limited capacity to use mowing because of a number of factors including vacancies in vegetation management staff, the Department's limited budget for weed abatement, and the limited number of tractor mowers (two). The Department faces a continued challenge of balancing the use of herbicides to control weed growth with the Department's capacity to mow or to graze with goats or sheep within the confines of the budget and the timeline to prevent fires.

Using mowers during hot, dry weather also poses a hazard of its own: sparks caused by the metal mower blades striking rocks or metal debris can ignite tinder-dry grass.

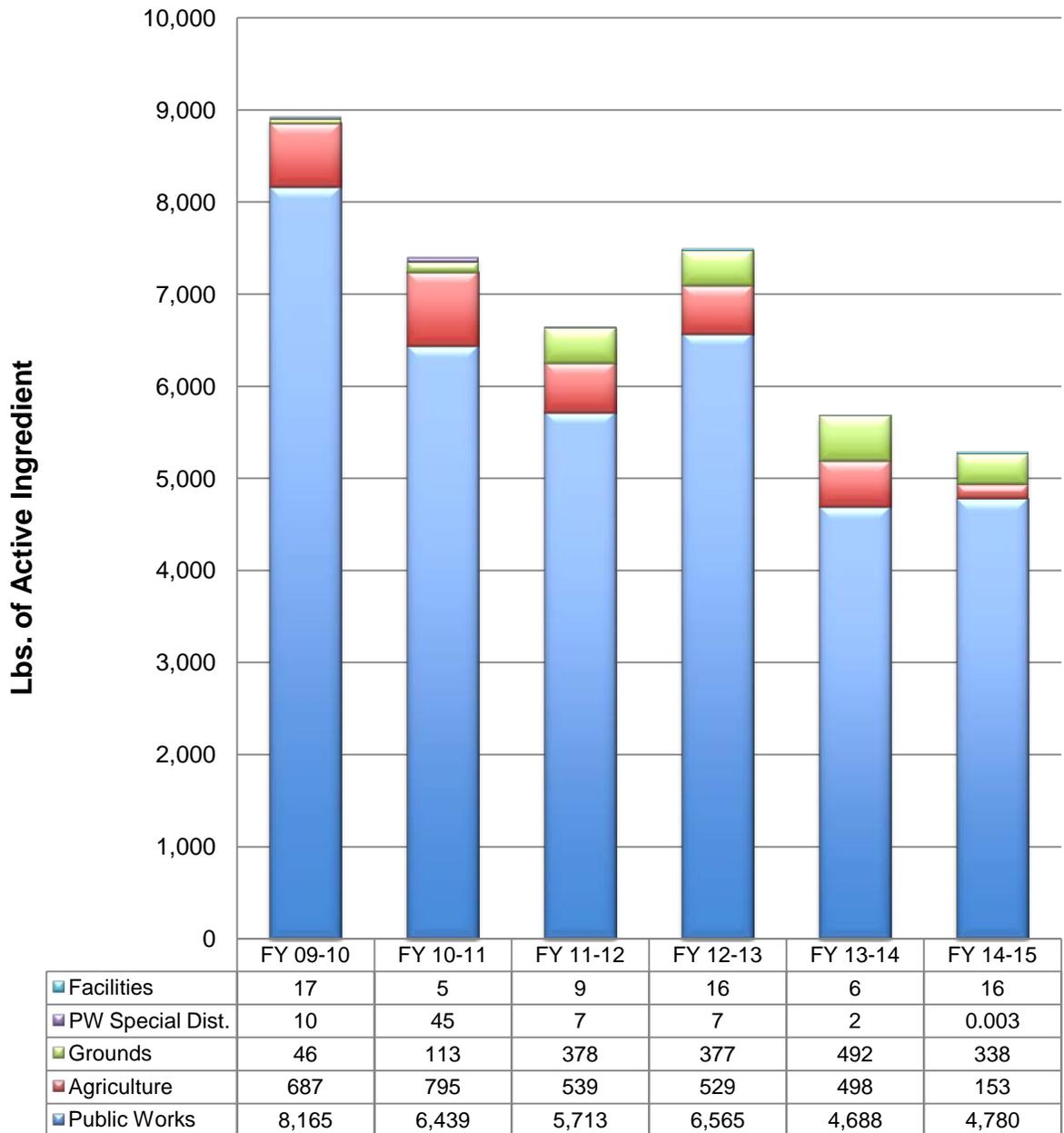
- Staffing

The Vegetation Management crew is still understaffed with only three personnel as compared to a staff of six in 2009.

Pesticide Use by Contra Costa County Operations

Starting in FY 00-01, the IPM Task Force annually reported pesticide use data to the Transportation, Water, and Infrastructure Committee for the County departments involved in pest management. The IPM Coordinator has continued this task. Below is a bar chart of pesticide use over the last 6 years. For information on pesticide use reporting and for more detailed pesticide use data including total product use, see Attachment C and the separate County Pesticide Use Spreadsheet.

CCC Operations Pesticide Use by Program



Increase in Pesticide Use by the Facilities Division

In FY 14-15 Pestec used 10 more pounds of active ingredients in and around County building due to the numerous Argentine ant infestations. Argentine ants feed on honeydew produced by insects such as aphids and scales. The sustained drought has reduced the vegetation that harbors these insects, and watering restrictions have eliminated much of the soil moisture available in the summer. These two factors forced Argentine ants indoors earlier in the year and more often as they searched for food and water.

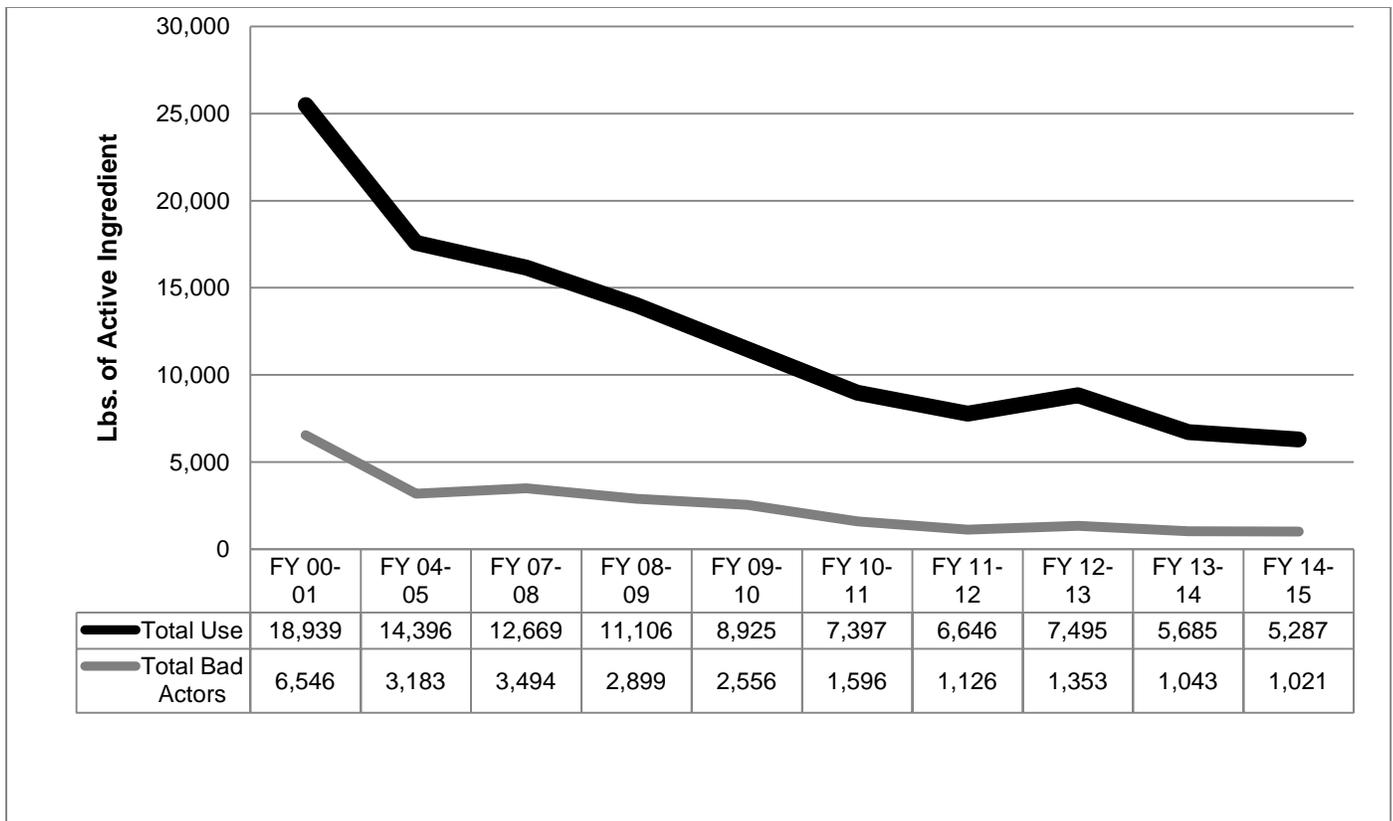
Concern about “Bad Actor” Pesticides

There has been concern among members of the public and within the County about the use of “Bad Actor” pesticides by County departments. “Bad Actor” is a term coined by the Pesticide Action Network (PAN) and Californians for Pesticide Reform to identify a “most toxic” set of pesticides. These pesticides are at least one of the following: known or probable carcinogens, reproductive or developmental toxicants, cholinesterase inhibitors, known groundwater contaminants, or pesticides with high acute toxicity.

Parents for a Safer Environment has requested that additional pesticides be reported as “Bad Actors”, but in 2013 after studying this request and consulting Dr. Susan Kegley, who was instrumental in developing the PAN pesticide database, the IPM Advisory Committee decided that the County will report as “Bad Actor” pesticides only those that are designated as such in the PAN database.

The County’s use of these particular pesticides has decreased dramatically since FY 00-01 as shown in the chart below. Of the 31 “Bad Actor” pesticides used by the County since 2000, 22 have been phased out and one more is in the process of being phased out. In addition, two other pesticides that are not designated as “Bad Actors” by the Pesticide Action Network are being phased out because the County feels they are particularly problematic.

CCC Operations Total Pesticide Use vs. ‘Bad Actor’ Use



Pesticide Applied by the Agriculture Department

Since the Department acts primarily as a contractor to apply pesticide for other County departments, park districts, and municipalities, in February 2015, the Department began separating its pesticide use by the entity that contracts the work.

The chart below shows the amounts applied for these various jurisdictions since February compared to the total amount of pesticide applied by the Department.

Pesticide (in pounds of active ingredient—"a.i.") Applied by the Agriculture Department for Other Jurisdictions

	Clarity	Milestone	Pro-Tron (Adjuvant)	Roundup Pro Concentrate	Stalker	Telar	Diphacinone 0.01%	Diphacinone 0.005%	In-Place (Drift mgmt.)	TOTALS
Jurisdiction	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.	Lbs a.i.
Mt. Diablo State Park	3.37	0.47	0.18							4.02
East Bay Regional Parks	43.46	4.74	15.42			0.56				64.18
Sky Ranch Developer	39.08	6.70	22.20						2.98	70.96
Contra Costa Water	1.26	0.15	0.57				0.10			2.08
Town of Moraga				6.27						6.27
Reclamation Districts							0.04			0.04
CCC Rights-of-Way							0.45			0.45
Totals for Separated Use (Feb to June 2015)	87.17	12.06	38.37	6.27		0.56	0.59		2.98	148.000
Total Ag Use for FY 14-15	87.31	12.07	38.38	8.49	0.001	0.79	2.71	0.01	2.98	152.74
Amt not separated (July 2014 through Jan 2015)	0.14	0	0	2.22	0.001	0.23	2.12	0.01	0	4.72

Re-evaluation of the Herbicide Glyphosate (Roundup®)

This spring, the International Agency for Research on Cancer (IARC) classified glyphosate, the active ingredient in the herbicide Roundup®, as Group 2A “probably carcinogenic to humans.” IARC classifies agents, mixtures of agents, and exposures into five groups according to their potential to cause cancer:

- Group 1: Carcinogenic to humans.
- Group 2A: Probably carcinogenic to humans.
- Group 2B: Possibly carcinogenic to humans.
- Group 3: Not classifiable as to its carcinogenicity to humans.
- Group 4: Probably not carcinogenic to humans.

To place the glyphosate designation in context, examples of agents and exposures in Group 1 are arsenic, lindane, smoking, alcoholic beverages, ultraviolet radiation, and consumption of processed meats. Examples in Group 2A are malathion, emissions from high temperature frying, consumption of red meat, and burning wood in a fireplace. (Source: IARC)

IARC identifies the potential for a chemical to cause cancer but does not quantify any increased risk to people from a chemical nor does it recommend a safe level of exposure. Those designations are left up to regulatory agencies around the world. The USEPA is currently conducting a formal review of glyphosate and has said it will give “full consideration” to the IARC findings. The USEPA currently places glyphosate in Group E, Evidence of

Non-carcinogenicity for Humans. At present, it is unclear how potent a carcinogen glyphosate is; however, it is clear that people who apply glyphosate are at greatest risk for any deleterious effects and that personal protective equipment (PPE) can mitigate those effects.

In April of this year, Health Canada published its Proposed Re-evaluation Decision for glyphosate in which it proposed continuing registration of products containing glyphosate for sale and use in Canada and stated the following:

The World Health Organization's (WHO) International Agency for Research on Cancer (IARC) recently assigned a hazard classification for glyphosate as "probably carcinogenic to humans". It is important to note that a hazard classification is not a health risk assessment. The level of human exposure, which determines the actual risk, was not taken into account by WHO (IARC). Pesticides are registered for use in Canada only if the level of exposure to Canadians does not cause any harmful effects, including cancer.

On November 12, 2015, the European Food Safety Authority (EFSA) ruled that glyphosate probably does not cause cancer in humans despite IARC's finding. However, EFSA set an acute reference dose (ARfD) at 0.5 mg/kg of body weight and an acceptable daily intake (ADI) at 0.5 mg/kg of body weight per day. They set an acceptable operator exposure level (AOEL) at 0.1 mg/kg of body weight per day. The following is from the EFSA website (<http://www.efsa.europa.eu/en/press/news/151112>):

A peer review expert group made up of EFSA scientists and representatives from risk assessment bodies in EU Member States has set an acute reference dose (ARfD) for glyphosate of 0.5 mg per kg of body weight, the first time such an exposure threshold has been applied to the substance.

Jose Tarazona, head of EFSA's Pesticides Unit, said: "This has been an exhaustive process – a full assessment that has taken into account a wealth of new studies and data. By introducing an acute reference dose we are further tightening the way potential risks from glyphosate will be assessed in the future. Regarding carcinogenicity, it is unlikely that this substance is carcinogenic."

The peer review group concluded that glyphosate is unlikely to be genotoxic (i.e. damaging to DNA) or to pose a carcinogenic threat to humans. Glyphosate is not proposed to be classified as carcinogenic under the EU regulation for classification, labelling and packaging of chemical substances. In particular, all the Member State experts but one agreed that neither the epidemiological data (i.e. on humans) nor the evidence from animal studies demonstrated causality between exposure to glyphosate and the development of cancer in humans.

EFSA also considered, at the request of the European Commission, the report published by the International Agency for Research on Cancer (IARC), which classified glyphosate as probably carcinogenic to humans.

IARC's designation has raised controversy among scientists around the world, and it remains to be seen what action USEPA will take. IARC did not perform any studies on its own; the panel reviewed existing research.

Any pesticide used by the County should always be employed thoughtfully and judiciously within a comprehensive IPM program. County Departments have been reviewing their use of glyphosate in light of the new designation from IARC, and the IPM Coordinator and other County staff have participated in three meetings with Bay Area IPM Coordinators to discuss glyphosate. Because Counties around the Bay use a small part of the glyphosate reported to the Department of Pesticide Regulation, there is work to do to educate private applicators and private citizens who use pesticides in their yards.

At present the County is waiting for the USEPA's glyphosate review to be made public. At that point the County will once again re-evaluate the use of the herbicide and its alternatives. In the meantime, the County will continue using glyphosate where staff determine that non-chemical methods pose safety hazards to the public or workers or cannot provide the needed efficacy, where alternative chemicals (such as "green" herbicides) cannot provide the efficacy needed within the budget, or where alternative chemicals may pose a greater hazard than glyphosate (such as Garlon whose active ingredient is triclopyr).

Rodenticide Use

The Department of Agriculture uses rodenticide for ground squirrels whose burrowing threatens critical infrastructure in the County, such as roads, levees, earthen dams, and railroad embankments. In Special Districts rodents are managed by trapping with some use of rodenticides for gophers, moles, and voles at Livorna Park and around the playing field at Alamo School.

“First generation” vs. “second generation” anticoagulant rodenticides

Anticoagulants prevent blood from clotting and cause death by internal bleeding. In small doses they are used therapeutically in humans for a number of heart ailments. Vitamin K₁ is the antidote for anticoagulant poisoning, and is readily available. (There are some types of rodenticides for which there is no antidote.)

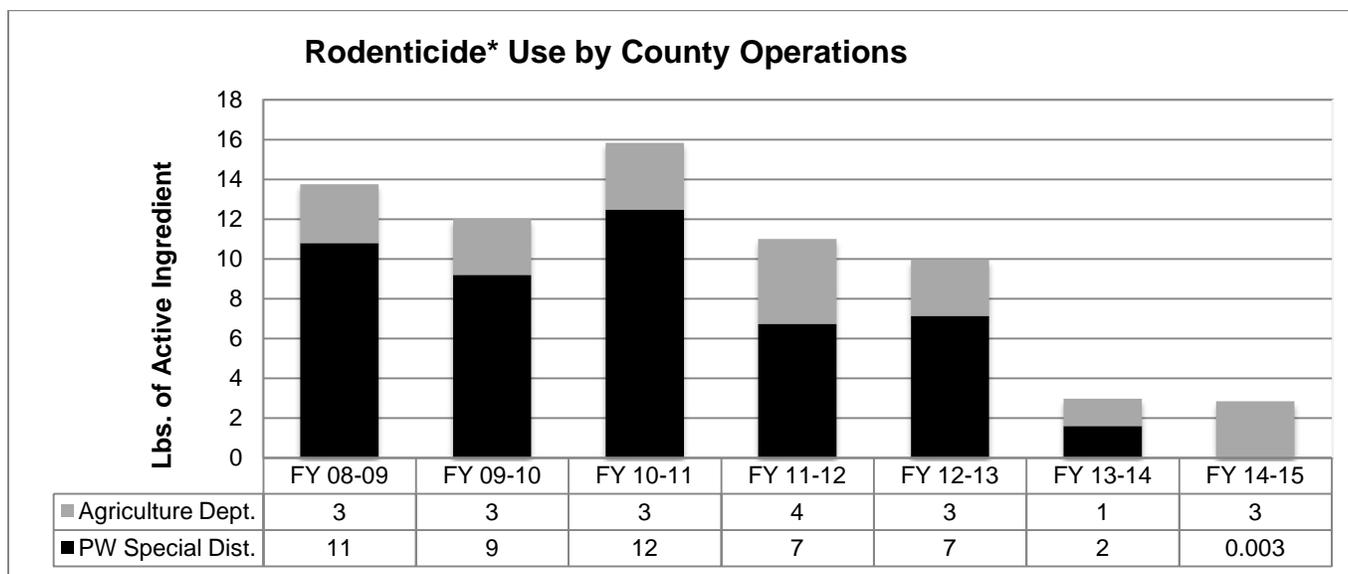
When anticoagulant rodenticides are necessary, the County uses first generation anticoagulant baits. First generation anticoagulants require multiple feedings over several days to a week to kill.

Second generation anticoagulants are designed to kill after a single feeding and pose a greater risk to animals that eat poisoned rodents. If the rodent continues to feed on a second generation anticoagulant after it eats a toxic dose at the first meal, it may build up more than a lethal dose in its body before the clotting factors run out and the animal dies. Residues of second generation anticoagulants may remain in liver tissue for many weeks. Because rodents poisoned by second generation anticoagulants can carry a heavier load of more toxic poison that persists in their bodies for a long period of time, the risk of death is increased for a predator that eats rodents poisoned by second generation anticoagulants.

The first generation materials are cleared much more rapidly from animal tissues and have a much reduced potential for secondary kill when compared to second generation materials. However, the first generation anticoagulants can also kill animals that eat poisoned rodents.

As noted earlier in this report, the Agriculture Department has revised its ground squirrel baiting procedure to reduce the amount of treated grain used. The Agriculture Department also mitigates the risk of secondary poisoning by performing carcass surveys in all areas treated with anticoagulants whether or not it is required by endangered species restrictions. In FY 14-15 ground squirrels were particularly abundant and the Department’s use increased to 2.72 lbs of diphacinone active ingredient. If the new baiting procedure had not been in place the amount used would have been much more.

Below, rodenticide use has been plotted separately from other pesticides used by the County.



* The Agriculture Department uses primarily diphacinone treated grain bait, but in years past they also used some gas cartridges as fumigation agents.

In FY 14-15, Special Districts used only diphacinone, but in years past, their use was more than 99% aluminum phosphide, which is a fumigant and not an anticoagulant rodenticide.

Trends in Pesticide Use

A change in pesticide use from one year to the next does not necessarily indicate a long-term trend. Long-term trends are more meaningful than short-term changes. It is important to understand that pesticide use can increase and decrease depending on the pest population, the weather, the invasion of new and perhaps difficult to control pests, the use of new products that contain small percentages of active ingredient, the use of chemicals that are less hazardous but not as effective, the addition or subtraction of new pest management projects to a department's workload, and cuts to budgets or staff that make it difficult or impossible to use alternate methods of control.

The County's pesticide use trend follows a trend typical of other pollution reduction programs. Early reductions are dramatic during the period when changes that are easy to make are accomplished. When this "low-hanging fruit" has been plucked, it takes more time and effort to investigate and analyze where additional changes can be made. Since FY 00-01, the County has reduced its use of pesticide by 72%. If further reductions in pesticide use are to be made, it will require time for focused study and additional funding for implementation.

Departmental Integrated Pest Management Priorities For 2016

Agriculture Department Priorities for 2016

- Continue the County's highly effective Noxious Weed Program

The Agriculture Department will give priority to weed work under contract with local parks and municipalities. Artichoke thistle and purple starthistle will remain the primary target weeds for the 2016 season. The Department will move more toward an advisory role with private landowners and will help them develop weed management plans and encourage landowners to take the primary role for weed control on their properties.

The Department will continue to respond to any "A" rated weed that enters the county with surveys and treatment.

- Ground Squirrel Management Program

The Agricultural Department will continue to provide advice to the County, municipalities, growers and the general public on the control of ground squirrels. Without effective control measures, ground squirrels will damage crops and infrastructure, such as earthen dams, levees, and highways. The economic and environmental consequences would be substantial.

Over the years the Department has experimented with raptor perches, exclusion techniques, and live trapping as alternatives to traditional baiting. Although some of these methods could provide reasonable control with small, limited infestations of ground squirrels, all of these methods are considerably more costly and less effective on a larger scale. The Department continues to search for the most effective, least toxic, and economical solutions for controlling ground squirrels within our county by consulting with researchers, the University of California Cooperative Extension Service, the California Department of Food and Agriculture, other counties, and with industry.

Public Works Department Priorities for 2016

Facilities Division

- Continue working to fix structural deficiencies in County buildings
- Continue monitoring the bed bug situation in County buildings and providing awareness training if necessary

Grounds Division

- Continue removing hazardous trees and trees killed by the drought; where appropriate and where there is funding, trees will be replaced with drought tolerant species
- Continue to convert turf to drought tolerant landscaping throughout the County
- Continue diverting as much green waste as possible from the landfill by chipping prunings and using the material in place
- Continue to use woodchip mulch from tree companies as a weed suppressant wherever possible
- Continue to chip large logs from tree companies and Public Works Maintenance for mulch
- Continue to negotiate with waste haulers to provide Grounds with pallets for chipping
- Continue to hand weed wherever and whenever possible; using mulch facilitates hand weeding
- Continue to educate the public to help them raise their tolerance of weeds
- Continue to conserve water as much as possible
- Continue to raise the level of service on County property

Roadside and Flood Control Maintenance Division

- Explore options to reduce grazing costs

The Department will continue working with grazing contractors to develop a procedure to use goats and/or sheep during off peak seasons at a reduced cost in areas such as detention basins, flood control channels, and other secure locations.

- Continue to collect data from the two spray trucks equipped with data collectors and analyze data to ensure accuracy and usability of information.

- Continue to refine IPM practices

The Vegetation Manager will continue to refine the Department's IPM practices and investigate new methods of weed control. With the successful grazing by goats and sheep along Walnut Creek, the Vegetation Manager will explore the feasibility of reseeding with a native rye grass in an effort to choke out fire prone weeds such as wild oats.

Attachment A. Pest Management Decision Making Document

Using Grazing Animals for Vegetation Management

Contra Costa County

DECISION DOCUMENTATION for WEED MANAGEMENT:

Using Grazing Animals for Vegetation Abatement

Date: 5/29/15, revised 8/18/15

Department: Public Works Vegetation Management

Location: Countywide

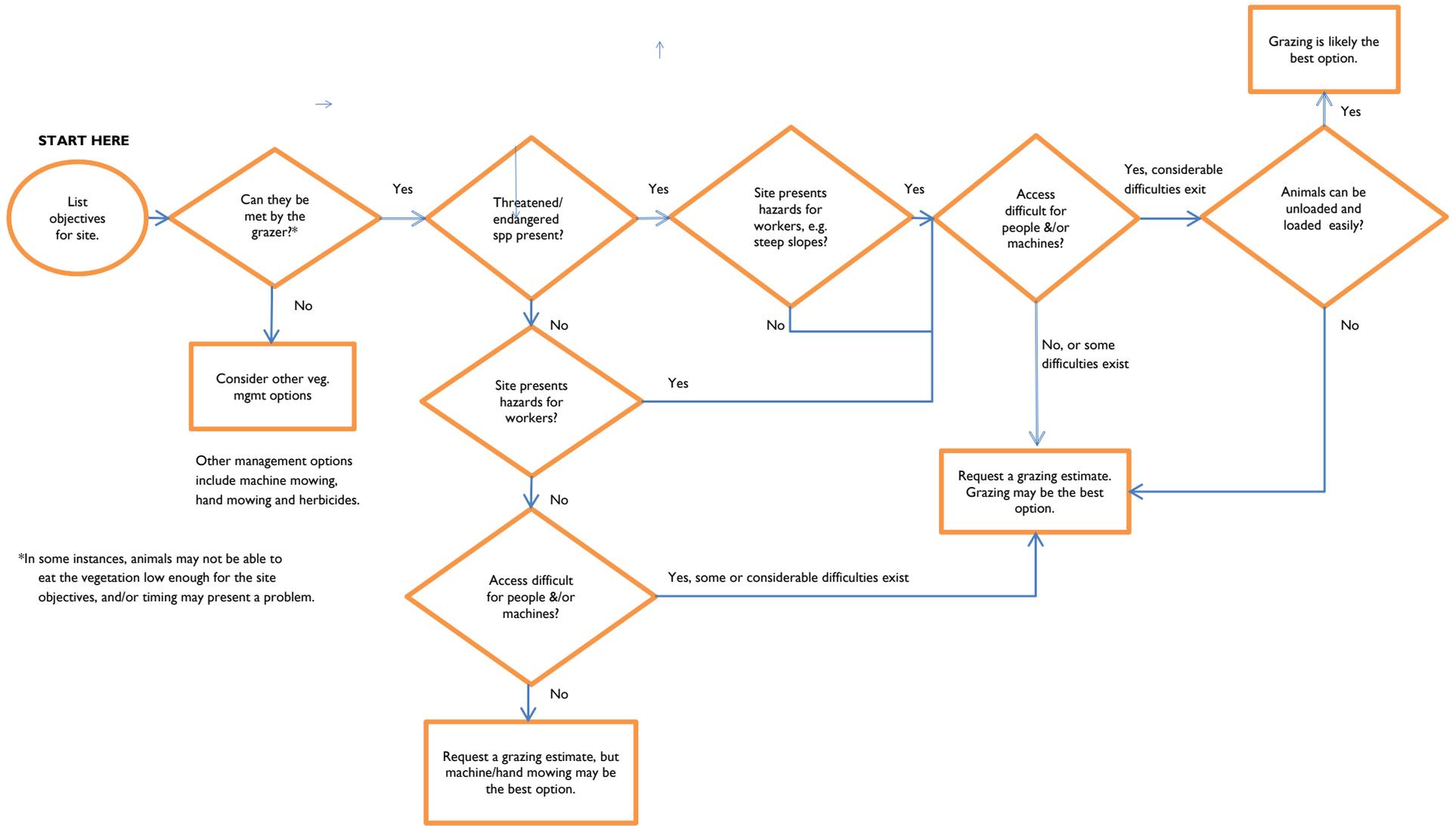
Situation: Weeds along flood control channels and in flood control detention basins

<p>What are the management goals for the sites?</p>	<p>The primary management goals are to maintain weeds at a suitable height for fire prevention, to prevent siltation, and to facilitate water flow in the event of a flood. The specific goals vary from site to site, and each flood control facility has its own operations and maintenance manual, which may list facility-specific vegetation management goals. The following are general vegetation management goals:</p> <ol style="list-style-type: none">1. Create firebreaks. These are mandated by the 9 fire districts and 19 cities that have jurisdiction in areas with County-maintained property. Specific stipulations, e.g., for the width of the firebreak or need for cross breaks, differ for different properties, according to the fire district with jurisdiction.<ul style="list-style-type: none">• Small properties usually need to have all the vegetation grazed to the height of 3" to 6", depending on the regulations.• Large parcels may only require a perimeter firebreak, with or without firebreaks cut through the middle or in various patterns.2. Reduce fire fuel. This is not necessarily mandated by fire regulations, but it helps the Department in their vegetation management.<ul style="list-style-type: none">• Public Works generally goes above and beyond the mandates from the fire districts to reduce fuel.• Grazing allows the Department to reduce fuel by much more than would be possible by hand or machine.3. Reduce or modify habitat.<ul style="list-style-type: none">• The Department works to expose and discourage ground squirrel colonies.• The Department works to reduce habitat for nesting birds so that crews can perform required maintenance activities without harming any birds.• The Department may also modify vegetation and/or the shape and depth of the low-flow channel to meet Contra Costa Mosquito & Vector Control District requirements.• The Department tries to reduce cover for homeless encampments.4. Reduce vegetation to improve visual inspection of flood control channels.<ul style="list-style-type: none">• The Department is looking for slumping and erosion on the slopes, for malfunctioning hardware, and for other problems.• Grazing exposes these problems and makes inspections with the Army Corps of Engineers much easier.5. Remove or reduce water flow impediments, i.e., vegetation growing in the channel.<ul style="list-style-type: none">• Vegetation growing in the channel can snag debris that is carried in the water during a flood event and could potentially cause water to overflow the banks.• Engineered channels are designed to maintain a certain flow rate. When the water slows, sediment drops out of the flowing water and falls to the bottom of the channel. This increases the maintenance needed in the channel because it reduces the carrying capacity of the channel.• The Army Corps of Engineers wants Public Works to remove sediment to keep the water flowing and to maintain the capacity of the channel, but the Department has found it very difficult to get permits from the Regional Water Quality Control Board to take out sediment. Thus it is important that the Department prevent sedimentation as much as possible.
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	Note that if Contra Costa's flood control channels are not properly maintained, they could be decertified by the Army Corps of Engineers, which would result in the property owners in many communities having to purchase very expensive flood insurance.	
For this facility's goals, is herbicide a viable option?	Note that for most of the flood control facilities and their management goals, herbicides alone are not an option.	
How often are the sites monitored?	<p>This varies from site to site.</p> <p>In the course of their other work, Vegetation Management and Flood Control Maintenance staff continually monitor weed conditions and alert the Vegetation Manager of any incipient problems. The Vegetation Manager routinely inspects all channels.</p> <p>Note that goats greatly reduce the vegetation growing in the channel which allows the Department to more easily monitor for invasive weeds and structural problems.</p>	
Weeds have been identified as the following:	Any broadleaf weeds or grasses. Trees can also be considered weeds if they are growing on the slope or in the channel of an engineered flood control channel. Note that goats will eat tree seedlings and debark larger trees. Larger trees may not be killed and must be cut and killed by painting the cut portion of the stump with herbicide. This technique is used primarily in engineered channels and not in natural stream channels.	
Are populations high enough to require control? Explain	This is determined by the Vegetation Manager using requirements from the corresponding fire district, the Army Corps of Engineers, and his knowledge and experience in order to meet the maintenance goals of the particular flood control facility.	
Is this a sensitive site?	Are any of the sites under management considered highly sensitive sites?	Yes
	Are any sites under management part of any of the court-ordered injunction?	Yes
	Are any of the sites known or potential habitat for any endangered or threatened species?	Yes
	Note that in the past the California Department of Fish and Wildlife has not had an issue with goats grazing in areas with red-legged frogs.	
	Are any of the sites on or near an area where people walk or children play?	Yes
	Are any of the sites near a drinking water reservoir?	No
	Are any of the sites near a creek or flood control channel?	Yes
	Are any of the sites near crops?	Yes
	Are any of the sites near desirable trees or landscaping?	Yes
	Are any of the sites on soil that is highly permeable, sandy, or gravelly?	Not applicable
	At any of the sites, is the ground water near the surface?	Not applicable
Are there any well heads near the sites?	Not applicable	
What factors are	See the attached decision tree for grazing.	

<p>taken into account when considering a site for grazing?</p>	
<p>What factors contribute the cost of grazing?</p>	<ol style="list-style-type: none"> 1. The size and shape of the parcel <ol style="list-style-type: none"> a. For a large parcel, the cost of moving the animals in and out is spread over a number of acres. b. A long narrow parcel could cost more because the animals might have to be moved many times. 2. The ease of access to a site for the unloading and loading of the animals 3. The amount of fencing necessary 4. The number of times the animals have to be moved within the site and the ease with which that can be done 5. The availability of water at the site for the animals (having to truck in water can increase the cost) 6. The time of year in which the parcel is grazed (grazing in fall and winter is far less expensive than when demand is high in the spring and summer)
<p>Are special permits required to graze flood control channels? Flood control basins?</p>	<p>No special permits are required. This activity is subject to the procedures of the Routine Maintenance Agreement (RMA) that the Department has with California Fish and Wildlife and includes a habitat assessment before work begins and follows species-specific guidelines for maintenance in the channels. Fish and Wildlife considers grazing to be the least problematic weed control technique.</p> <p>The Public Works Department reports areas being grazed in their quarterly report to the state Fish and Wildlife Department.</p>
<p>What qualities does a good goat grazing company have?</p>	<p>Some possible qualities:</p> <ul style="list-style-type: none"> • Availability of adequately sized herds for the jobs • Responsiveness—available within a couple of weeks of the request rather than a couple of months • Within a reasonable distance from the job sites • Ability to meet contract requirements <p>A bonus for the Department is a “no-kill” company that does not cull its herds for slaughter at the end of the season. This is a selling point for citizens who call the Department worried about the welfare of the animals.</p>
<p>What are important requirements to have in the grazing contract?</p>	<ol style="list-style-type: none"> 1. One shepherd trained in management of livestock in urban and suburban areas must live on site with each livestock herd. 2. The shepherd must be provided with a cellular phone or equivalent and must be in possession of the phone at all times. 3. The livestock must be contained in designated areas with a fully intact chain link or hog-wire fence connected to an electrical supply, and the fence must be maintained at all times. 4. The contractor must supply herding dogs trained to contain goats/sheep and protect goats/sheep from wild and domestic predators. 5. The contractor must supply portable sleeping, cooking, and sanitary facilities for the shepherds to be located on the Flood Control District property; the contractor may make alternate arrangements with other property owners. 6. The final determination of vegetation management services shall be at the discretion of the County, and the contractor shall meet with designated County staff to determine completion. 7. The contractor must remove livestock from the site when grazing objectives are met, or within 48 hours of completion of service, or within 24 hours, upon notification by the County.
<p>Comments</p>	<p>Grazing can be used in conjunction with herbicide treatments:</p> <p>First grazing is used to reduce biomass in the channels and make it easier to see invasive weeds that need to be treated. After the animals have left, crews can easily spot treat the invasive and other serious weeds with herbicide to kill them.</p>

Decision Tree for Using Grazing Animals for Vegetation Management



*In some instances, animals may not be able to eat the vegetation low enough for the site objectives, and/or timing may present a problem.

Attachment B. Subcommittee Reports

Weeds

Bed Bugs

Final Report from the Weed Subcommittee to the Contra Costa County IPM Committee.

Prepared by Tanya Drlik, IPM Coordinator, September 2015

Members

Doug Freier

Chad Godoy/Larry Yost

Michael Kent

Cheng Liao

Cece Sellgren, Chair

The Weed subcommittee met five times in 2015: February 17, March 10, April 21, June 9, and August 6. The subcommittee had scheduled a meeting on April 14, but due to unforeseen circumstances, several members were absent. Since the subcommittee did not have a quorum, the meeting was cancelled and rescheduled for April 21.

The Board of Supervisors had requested that the IPM Advisory Committee produce more policy recommendations for their consideration. As a consequence, the subcommittee chose as one focus to develop recommendations on funding problems in the Grounds Division and on sustainable landscaping in the County. The second focus of the subcommittee was developing another decision-making document. The subcommittee chose grazing as the topic.

Gathering Information from the Grounds Division Program

The subcommittee heard several staff reports on the state of grounds maintenance around County buildings and discussed the issue with Kevin Lachapelle, Grounds Manager. Some of the problems the Grounds Division faces are as follows:

- Funding for grounds maintenance is dynamic and beyond the control of Grounds Division staff. The amount of funding is tied to the Departments that have offices in the building. Some Departments have more money than others and/or are willing to spend more on landscape maintenance. As tenants move in and out of buildings, budgets for maintenance change while the cost of maintaining the landscape around that particular building does not. Since the recession, this has largely resulted in a lack of funds to properly maintain most County landscaping.
- Because of the way grounds maintenance is funded, it is very difficult to make long term investments in the landscaping to reduce pesticide use, water use, and maintenance costs.

Turf Conversion in the County

The subcommittee heard reports from staff on removal of turf from around County buildings.

This is the fourth and most severe year of drought in California. The continuing drought presents the perfect opportunity to convince departments to convert their lawns to drought-tolerant landscaping where plants are widely spaced and surrounded by wood chip mulch. Turf conversion

- Saves water;
- Allows the County to be an example for its citizens;
- Saves on maintenance costs since turf requires very high maintenance;
- Allows maintenance staff to spend the time saved on other crucial maintenance tasks including managing weeds by physical means, such as hand pulling, as opposed to herbicide applications;
- Reduces herbicide use in the landscape since reduced irrigation and mulch will greatly suppress weed growth;
- Reduces other pesticide use since turf is susceptible to many pests and diseases;

- Reduces the possibility of citizen exposure to pesticides since the risk of exposure is greater in landscaping than for example, along roadsides;
- Reduces greenhouse gas emissions from turf maintenance equipment and from pumping water to irrigate the turf; and
- Moves County landscapes in the direction of greater sustainability.

The Grounds Division chose the Pittsburg Health Center at 2311 Loveridge in Pittsburg as the pilot project. About 70% of the turf was removed and replaced with drought-tolerant landscaping and mulch. The conversion is projected to save one million gallons of water per year.

Recommendations to the Board of Supervisors

The subcommittee developed recommendations to address some of the Grounds Division issues. (See below.)

Decision-Making Document for Grazing on Flood Control Channels.

The subcommittee reviewed the document with the Public Works Vegetation Manager and made requests for a number of changes, clarifications, and improvements. Some of the improvements that were added are as follows:

- More specifics about management goals
- A note about grazing being considered the least problematic weed control technique by the Department of Fish and Wildlife
- A note clarifying that grazing animals may not always be able to meet the objectives of the site because they cannot eat the vegetation low enough or because timing issues may present insurmountable problems

See Attachment A for a copy of the decision-making document.

MEMO

TO: Transportation, Water and Infrastructure Committee
Supervisor Andersen, Chair
Supervisor Piepho, Vice Chair

FROM: Tanya Drlik, IPM Coordinator

SUBJECT: Recommendations on Sustainable Landscaping from the IPM Advisory Committee

DATE: August 18, 2015

BACKGROUND

This is the fourth and most severe year of drought in California. The County has an opportunity to lead the way in water conservation and provide practical examples for its citizens. Turf around County buildings is used largely for aesthetic purposes and consumes far more water than drought tolerant landscaping. Drought-tolerant landscaping can be very attractive, and demonstration projects in the County will help citizens adjust to the new aesthetic.

This summer one such project was completed in the County. Approximately 70% of the turf at the Pittsburg Health Center (2311 Loveridge, Pittsburg) was removed and replaced with drought-tolerant plants that are widely spaced and mulched with wood chips. The change at the site is projected to save one million gallons of water per year. The current funding structure for maintenance of County landscaping is not conducive to projects such as this that may require an upfront investment that will provide returns only over the long-term.

Much of the landscaping around County buildings is aging and will require renovation in the near future. This presents the opportunity to alter County landscapes so they use less water and require less time and less pesticide to maintain them adequately.

RECOMMENDATIONS FROM THE IPM ADVISORY COMMITTEE

1. Develop a Countywide policy to convert existing turf to drought tolerant, low maintenance, and low pesticide use landscaping. The exceptions to this policy would be play areas for Head Start sites and turf in parks that is used for recreation (turf areas in parks that are not used for recreation should be converted to drought tolerant landscaping). The design for any turf conversion should use the least amount of pesticide practical in the preparation of the site.
2. Provide funding for conversion to sustainable landscaping
 - a. Develop ideas for a funding structure for new landscape installation, turf conversion, and landscape maintenance and renovation that is not coupled to the particular building or the departments housed in the building in order to provide secure, long-term funding for landscape maintenance and for projects that require up-front investment.
 - b. Pursue outside funding for turf conversion but do not allow the lack of outside funding to stymie the removal of existing turf. Perhaps the position of Sustainability Coordinator, if and when it is filled, could pursue grant funding for sustainable landscaping projects.
3. Develop a County policy to take decisions about the type of landscaping around buildings out of the hands of the tenants of that building in order that long range plans and long term investments in the landscaping can be made.
4. Make the following additions to the existing County Landscape Standards under "D. Design Guidelines, 3.01. General":
 - a. Lifecycle costing will be used when landscapes are renovated or created.

[Note: This is to ensure that projects can be undertaken that require a substantial up-front investment to save money, labor, water, and pesticide in the future.]

- b. Designs for all landscaping should take into account the level of maintenance and pest management that will be required to sustain the landscape. Designs should be aesthetically pleasing, low maintenance, water conserving, and maintained using an IPM approach for pest management.
5. Make the following changes in wording to the existing County Landscape Standards under “D. Design Guidelines, 3.06. Water Conservation, part C”
 - C. Emphasis shall be placed on plants well suited to the microclimate and soil conditions at the given site and that require minimal water once established, are relatively free from pests and diseases, ~~and~~ are generally easy to maintain, are pollinator-friendly, and are native to California. Reference shall be made to currently recognized sources such as EBMUD’s *Water Conserving Plants and Landscapes for the Bay Area* or Bob Perry’s *Trees and Shrubs for Dry California Landscapes* for recommended water conserving plants.
 6. Make the following addition to the existing County Landscape Standards under “D. Design Guidelines, 3.09. Turf”:

Turf shall not be proposed except in Head Start and other child care play areas and in parks where it will be used for recreation. Turf shall not be proposed for purely aesthetic purposes.
 7. Develop a County policy to require that landscape designs be reviewed and approved by the Public Works Grounds Division, in addition to the other required reviews and approvals. The Grounds Division should review plans for the long-term sustainability of the landscape with regard to maintenance costs and potential pest and disease problems. Landscaping can be in place for 10 to 20 years, and poor designs and inappropriate plant choices waste County resources. The Grounds Division has considerable expertise in determining maintenance costs and recognizing future maintenance and pest problems.
 8. Develop a County policy to require that the plant lists for landscape designs be reviewed by the County Department of Agriculture whose staff are the County experts on invasive plants. Many of the invasive plants that are plaguing California wildlands today were unwittingly introduced by the nursery trade into urban landscapes where they escaped to become major pests that cost Californians at least 82 million dollars every year.

RECOMMENDATIONS/NEXT STEPS

APPROVE recommendations and DIRECT County staff as appropriate.

Report from the Bed Bug Subcommittee to the Contra Costa County IPM Committee.

Prepared by Tanya Drlik, IPM Coordinator, September 2015

Members

Luis/Carlos Agurto
Susan Heckly
Marj Leeds
Patti TenBrook—Chair

The Bed Bug subcommittee met three times in 2015: April 13, June 10, and August 12.

The Board of Supervisors had requested that the IPM Advisory Committee produce more recommendation for their consideration. As a consequence, the subcommittee chose to focus on developing a bed bug ordinance for the Supervisors to consider. The subcommittee also reviewed the County's bed bug website and made suggestions for improvement.

Bed Bug Ordinance

The committee reviewed legislation from around the country and made a list of the most important provisions. The committee then became aware of AB 551 introduced by Assemblyman Adrin Nazarian, which is currently making its way through the California Legislature. This bill includes almost all of the salient points that the Bed Bug subcommittee gathered from other legislation, and according to Assemblyman Nazarian's aid, there is a good chance it will pass and go to the governor later this year.

The Bed Bug subcommittee has drafted an ordinance for Contra Costa County that is based directly on AB 551. This draft can either be used as the basis for a County ordinance or as the basis for implementing AB 551 if and when it becomes law.

The IPM Coordinator will take the draft ordinance to the Transportation, Water and Infrastructure Committee on September 8, 2015 to receive direction from Supervisors Andersen and Piepho on whether to continue working on the ordinance. The IPM Coordinator will also ask for advice on where to house enforcement for the ordinance and how to apportion costs for bed bug treatments between landlords and tenants.

Bed Bug Website

The committee reviewed the County's bed bug web pages at cchealth.org/bedbugs and suggested the following:

- Add information on the front page about bed bugs being a community problem that must be solved by the community
- Add a separate tab for pest control professionals that includes a link to the National Pest Management Association's bed bug guidelines, a template for a bed bug IPM plan, and County social service resources that they could call to help customers
- Add a tab for travelers with information on how to not bring bed bugs home
- Add a tab for homeowners, for businesses, and for schools
- Add the EPA bed bug website under Resources

MEMO

TO: Transportation, Water and Infrastructure Committee
Supervisor Andersen, Chair
Supervisor Piepho, Vice Chair

FROM: Tanya Drlik, IPM Coordinator

SUBJECT: Draft Bed Bug Ordinance

DATE: August 18, 2015

BACKGROUND

Bed bugs are a continuing problem in Contra Costa County, and they disproportionately affect low income people, the elderly and the disabled. We encounter numerous situations where the property owner refuses to control the bed bug infestation or out of ignorance implements measures that make the problem worse. Tenants lack information on their responsibilities in preventing infestations and cooperating in control, and pest control companies need guidelines for treating bed bug infestations using the best available practices. This information exists but is not collected in one document for Contra Costa County.

The IPM Advisory Committee's Bed Bug subcommittee has been discussing bed bug ordinances for several meetings and has reviewed legislation from around the U.S. with an eye to drafting an ordinance for Contra Costa that would address the issues mentioned above. The subcommittee became aware of AB 551 introduced by Assemblyman Adrin Nazarian, which is currently making its way through the California Legislature. This bill includes almost all of the salient points that the Bed Bug subcommittee gathered from other legislation, and according to Assemblyman Nazarian's aid, there is a good chance it will pass and go to the governor later this year.

The Bed Bug subcommittee has drafted an ordinance for Contra Costa County that is based directly on AB 551. This draft can either be used as the basis for a County ordinance or as the basis for implementing AB 551 if and when it becomes law.

RECOMMENDATIONS/NEXT STEPS

The Bed Bug subcommittee would like direction from the TWI Committee about whether to continue work on an ordinance for the County. It should be noted that in AB 551, the Legislature declares its intention to occupy the field with regard to this subject.

The subcommittee also requests direction on how to apportion the costs of bed bug treatment between landlord and tenant and where to house enforcement of this ordinance.

DRAFT CONTRA COSTA BED BUG ORDINANCE

[NOTE: This draft is based directly on AB 551. For clarity, responsibilities listed in AB 551 have been grouped under Landlord, Tenant, and Pest Control Operator.]

The IPM Advisory Committee's Bed Bug subcommittee finds that

- Controlling bed bugs is uniquely challenging, as bed bug resistance to existing insecticidal control measures is significant. Cooperation among landlords, tenants, and pest control operators is required for successful control.
- Tenants, property owners, and pest control operators have distinct rights and responsibilities regarding bed bug infestations.
- Effective control is more likely to occur when landlords and tenants are informed of the best practices for bed bug control.
- Early detection and reporting of bed bugs is an important component required for preventing bed bug infestations. Tenants should not face retaliation for reporting a problem.
- Lack of cooperation by landlords and tenants can undermine pest control operator efforts to identify the presence of bed bugs and control an infestation. Depending on the treatment strategy, it is often critical that tenants cooperate with pest control operators by reducing clutter, washing clothes, or performing other activities. Likewise, inadequate or untimely response or planning by landlords may exacerbate an infestation.
- Specific, enforceable duties of tenants and landlords are necessary so that the failure of a tenant or landlord to cooperate fully does not prevent effective investigation, treatment, and monitoring of all infested and surrounding units.

For the purposes of this ordinance:

1. "Bed bug management plan" means a written plan prepared by a pest control operator and the landlord for a property. The plan will outline the responsibilities of the landlord and tenants and shall be consistent with the National Pest Management Association's (NPMA) best practices and tailored to the conditions at the property. The plan shall include, but is not limited to, the following:
 - a. Education of tenants to reduce the risk of introduction of bed bugs to the property and to encourage reporting. Education methods and frequency shall be based on resources of the landlord.
 - b. Housekeeping and building maintenance procedures to help prevent bed bug harborage, including recommendations from a pest control operator about correcting bed bug hiding places and entry points, for example by sealing cracks and crevices in walls, ceilings, and floors, and fixing loose moldings and peeling wallpaper.
 - c. The landlord's process for responding to complaints and a brief statement of the requirements of this ordinance.
 - d. Written documentation of any bed bug treatment program.
 - e. Use of monitoring devices on a proactive basis, routine monitoring inspections by trained employees or licensed pest control operators, if appropriate, as agreed by the pest control operator and the landlord.
 - f. A complaint log that documents compliance with this ordinance.
2. "Bed bug treatment program" means a program, based on the NPMA's best practices, for treating an infestation to remove or kill visible and accessible bed bugs and their eggs, either immediately or through residual effects. The program shall be structured to continue until the infestation is controlled.
3. "Complaint log" means part of a bed bug management plan that tracks a landlord's ongoing responses to each bed bug report over the preceding two years. The complaint log shall include, but is not limited to, records pertaining to verification inspections and inspections of adjacent units, results of inspections, records of notices provided to tenants, unit preparation inspections, treatment type, locations and dates, and follow up inspections.
4. "Inspection" means an investigation of the premises, using NPMA's best practices to confirm or rule out a bed bug infestation, to identify all infested areas, to determine treatment tactics, or to verify that an infestation has been eliminated.

5. “NPMA best practices” means best management practices for bed bugs issued by the National Pest Management Association. “NPMA best practices” does not include practices or actions that conflict with federal or state law.
6. “Pest control operator” means an individual with a Branch 2 license from the Structural Pest Control Board.
7. “Pretreatment checklist” means unit preparation requirements tailored to the treatment method, consistent with NPMA best practices, including, but not limited to, easy-to-understand instructions, pictures, and diagrams, prepared by the pest control operator and provided to tenants by the landlord or pest control operator. The checklist shall include instructions for how to treat tenant clothing, personal furnishings, and other belongings, if treatment is required, and shall provide contact information for the pest control operator to answer questions prior to treatment.

General Information Notice to Be Provided to Each Tenant

A landlord shall provide a written notice to tenants that shall include, but is not limited to the following:

- General information about bed bug identification, behavior and biology,
- The importance of cooperation for prevention and treatment
- The importance of prompt written reporting of suspected infestations to the landlord.

The County IPM Coordinator shall create a written notice, translated into several languages, that will be available on the County’s bed bug website: cchealth.org/bedbugs

This notice shall be provided to all current tenants by January 1, 2016 and to each prospective tenant thereafter.

If the landlord wishes to create his or her own notice, the information shall be substantially the same as the notice on the County’s bed bug website: cchealth.org/bedbugs

Landlord Responsibilities

1. Within five business days after a tenant or a public agency notifies a landlord of a suspected infestation, the landlord shall retain the services of a pest control operator to verify the suspected infestation and to conduct a further inspection, if determined to be necessary by the pest control operator.
2. Entry to inspect a tenant’s dwelling unit shall comply with Section 1954 of the California Civil Code. Entry to inspect any unit selected by the pest control operator and to conduct follow up inspections of surrounding units until bed bugs have been eliminated is a necessary service for the purpose of Section 1954.
3. If a pest control operator’s inspection confirms that a bed bug infestation exists:
 - a. The landlord shall notify all tenants of units identified for treatment by the pest control operator of the findings of infestation. The notification shall be in writing and made within two business days of receipt of the pest control operator’s findings. For confirmed infestations in common areas, all tenants shall be provided notice of the pest control operator’s findings.
 - b. If further inspections of the affected units or surrounding units are necessary as determined by the pest control operator, based on the NPMA best practices, subsequent notices shall include information about future inspections, unless that information was disclosed in a prior notice. Each entry shall require a notice conforming to Section 1954.
4. After an infestation is confirmed by a pest control operator, the landlord shall contract with a pest control operator to prepare and implement a bed bug treatment program to begin within a reasonable time. Beginning the treatment program within 10 calendar days after the infestation is confirmed shall be presumed as to be a reasonable time.
5. At least seven calendar days prior to treatment, the landlord shall provide to the affected tenants with the following:
 - a. A cover sheet from the landlord, in at least 10-point type, disclosing:
 - i. The date or dates of treatment, the deadline for tenant preparation of the unit, and the date, approximate hour, and length of time, if any, the tenant shall be required to be absent from the unit.

- ii. A statement that the tenant may request assistance or an extension of time to prepare the unit, to the extent required by law, to reasonably accommodate a disability.
 - iii. A statement that a tenant not entitled to a reasonable accommodation under law may also request an extension of three business days to prepare the unit.
 - iv. A statement that if the pest control operator recommends disposal of items, the tenant will follow the directions of the pest control operator to ensure that disposal does not spread bed bugs and that infested items are not re-used by others. These directions shall be in accordance with NPMA best practices.
- b. A pretreatment checklist with information provided by the pest control operator, which shall be in accordance with NPMA best practices.
 - c. A written notice of entry pursuant to California Civil Code Section 1954 to affected tenants for all treatments and inspections.
6. If an extension of time is provided in order to reasonably accommodate a tenant required under law to receive a reasonable accommodation, or for other tenants who have requested a three business day accommodation, the landlord shall provide all affected tenants with a notice of the revised dates and times as specified in 5.a.i. above under Landlord Responsibilities, as necessary.
 7. Inspection of unit preparation and bed bug treatment and post treatment inspection and monitoring of all affected and surrounding units as recommended by the pest control operator are a necessary service for the purpose of California Civil Code Section 1954.
 8. No later than 30 calendar days after a bed bug infestation is confirmed by a pest control operator, or by a code enforcement officer or a health officer under paragraph (12) of subdivision (a) of Section 17920.3 of the California Health and Safety Code, a pest control operator and the landlord shall prepare a written bed bug management plan for the property. This plan shall be made available to tenants upon request.
 9. It is unlawful for a landlord to rent or lease, or offer to rent or lease, any vacant dwelling unit that the landlord knows or should reasonably know has a current bed bug infestation.
 10. Service of a three-day notice and filing of an unlawful detainer action to enforce tenant responsibilities under this ordinance shall not be considered unlawful retaliation under Section 1942.5 of the California Civil Code.
 11. If a landlord has received notice of an infestation and is in compliance with the requirements of this ordinance, the property shall not, with respect to bed bugs, be considered to be substandard as defined in Section 17920.3 of the California Health and Safety Code, to be untenable as defined in Section 1941.1 of the California Code of Regulations, or to be in breach of the implied warranty of habitability.
 12. A landlord shall not be liable for any damages due to delays in bed bug treatment and control that are outside the landlord's control.

Tenant Responsibilities

1. A tenant shall not bring onto a property personal furnishings or belongings that the tenant knows or reasonably should know are infested with bed bugs.
2. Within seven calendar days after a tenant finds or reasonably suspects a bed bug infestation at a property, the tenant shall notify the landlord in writing of that fact and the evidence of infestation. Evidence of infestation includes, but is not limited to, live bed bug; staining on bedding, furniture or walls; or any recurring or unexplained bites, that the tenant knows or reasonably suspects are caused by bed bugs.
3. Tenants shall cooperate with the inspection to facilitate the detection and treatment of bed bugs, including providing requested information that is necessary to facilitate the detection and treatment of bed bugs to the pest control operator.
4. The tenant shall fulfill his or her responsibilities for unit preparation before the scheduled treatment, as described in the pest control operator's pretreatment checklist. Tenants shall be responsible for the management of their belongings, including, but not limited to, clothing and personal furnishings.
5. Tenants who are not able to fulfill their unit preparation responsibilities shall promptly notify the landlord. For a tenant not entitled to a reasonable accommodation under law who requests an extension of time to prepare the unit, the landlord shall extend the preparation time by three days.
6. A tenant shall cooperate in vacating his or her unit as notified for treatment purposes and shall not reenter the unit until directed by the pest control operator to do so.

Pest Control Operator Responsibilities

1. A pest control operator shall base his or her recommendations for inspections and treatments on the NPMA best practices (available at <http://www.pestworld.org/all-things-bed-bugs/>)
2. When a pest control operator is hired by a landlord to control a bed bug infestation, the pest control operator shall prepare and implement a bed bug treatment program based on NPMA best practices to begin within a reasonable time. Beginning the treatment program within 10 calendar days after the infestation is confirmed shall be presumed as to be a reasonable time. The pest control operator must immediately provide the landlord with the dates of treatment, the deadline for tenant preparation of the unit, and the date, approximate hour, and length of time, if any, the tenant shall be required to be absent from the unit in order for the landlord to alert affected tenants at least seven calendar days prior to treatment.
3. The pest control operator shall provide the landlord with a pre-treatment checklist for tenants following NPMA best practices.
4. The pest control operator shall use NPMA best practices in determining if it is necessary to dispose of a tenant's property and shall provide directions for proper disposal according to NPMA best practices.
5. No later than 30 calendar days after a bed bug infestation is confirmed by a pest control operator, or by a code enforcement officer or a health officer under paragraph (12) of subdivision (a) of Section 17920.3 of the California Health and Safety Code, a pest control operator and the landlord shall prepare a written bed bug management plan for the property.

Disposal of Bed Bug Infested Property

A landlord or tenant, when disposing of personal property that they own or control, that is infested with bed bugs, including, but not limited to, bedding, furniture, clothing, draperies, carpeting, or padding, shall follow NPMA best practices to prevent the spread of bed bugs and prevent the re-use of personal property by others. Materials needed to safely dispose of property shall be furnished as needed to the tenant by the landowner or pest control operator.

Injunctive and Declaratory Relief

In addition to any other remedies provided by law, a landlord or tenant may sue for injunctive or declaratory relief for violations of this chapter.

Failure to comply with NPMA best practices shall not constitute a violation of this ordinance if copies of the NPMA best practices are not available to the public free of charge

For Reference:

[From AB 551, Section 1954.24]

“(a) Except as provided in subdivision (b), to the end of providing a single, uniform approach to the treatment of bed bug infestations in residential tenancies in California, it is the intent of the Legislature to occupy the field with regard to this subject. Cities, counties, and other local entities are prohibited from enacting a local law on this subject.

“(b) The comprehensive ordinances and regulations of the City and County of San Francisco regarding the treatment and control of bed bug infestations are deemed to satisfy this chapter and are not preempted.”

Attachment C. Pesticide Use Reporting

(See separate PDF for Contra Costa County Operations Pesticide Use Data Spreadsheet)

History of Pesticide Use Reporting

Since the 1950s, the State of California has required at least some kind of pesticide use reporting, but in 1990, the comprehensive reporting program we have now went into effect.

California was the first state in the nation to require full reporting of all agricultural and governmental agency pesticide use. The current reporting system exempts home use pesticides and sanitizers, such as bleach, from reporting requirements. (Sanitizers are considered pesticides.)

What does “pesticide” mean?

The California Department of Pesticide Regulation (DPR) defines pesticide as “any substance or mixture of substances intended for preventing, destroying, repelling or mitigating insects, rodents, nematodes, fungi, weeds, or other pests. In California plant growth regulators, defoliants, and desiccants, as well as adjuvants, are also regulated as pesticides.”

“Adjuvants” increase pesticide efficacy and include emulsifiers, spreaders, foam suppressants, wetting agents, and other efficacy enhancers. In FY 14-15, Contra Costa County operations used a total of 5,287 lbs. of pesticide active ingredients, which included 1,815 lbs. of spray adjuvant active ingredients that were used to prevent foaming, to reduce pesticide drift, and change the pH of local water used in spraying.

How Pesticide Use is Reported to the State

Pesticide use data is reported monthly to the County Agriculture Commissioner. The data is checked and sent on to DPR, which maintains a database of pesticide use for the entire state. Although pesticide use is reported to DPR as pounds, ounces, or gallons of pesticide product, DPR reports pesticide use in its database as pounds of active ingredient.

DPR defines active ingredient as “[a]n agent in a product primarily responsible for the intended pesticidal effects and which is shown as an active ingredient on a pesticide label.” (Since adjuvants are regulated as pesticides in California, the active ingredients of adjuvants are also included in DPR’s database.)

How Pesticide Use is Reported by Contra Costa County Operations

The attached spreadsheet records pesticide use data only for County operations and not for any other agency, entity, company, or individual in the County.

Since DPR reports California pesticide use in pounds of active ingredient, Contra Costa County does the same. The County uses the same formula for converting gallons of pesticide product into pounds of active ingredient that the state uses:

Pounds of Active Ingredient =

gallons of product used X 8.33 lbs/gallon of water X the specific gravity of the product X the % of active ingredient in the product

**Contra Costa County Staff Responses to Issues Raised by the Public
Regarding the County Integrated Pest Management Program**

August 27 ~~November 20~~, 2015

<p>Date(s) Issue Raised to: TWIC = Transportation, Water & Infrastructure Committee IPM = IPM Committee or subcommittees IO=Internal Operations Committee</p>	<p>Issues Raised by the Public</p>	<p>Steps taken by the IPM Advisory Committee and County Staff from January 2009 to the present</p>
<p align="center"><u>Staff has found no unique or innovative pesticide alternatives in the Bay Area or Nation</u></p>		
<p><u>11/4/15-IPM</u></p>	<p><u><i>From Parents for a Safer Environment (PfSE)</i></u> <u>"In the staff document provided titled 2015 IPM Program Accomplishments, I was very surprised to read that staff believes after reviewing programs throughout the 'Bay Area and the nation', that 'there is nothing unique or innovative in the Bay Area or the nation.'"</u></p>	<ul style="list-style-type: none"> • <u>PfSE appears to be concerned that staff has found no unique or innovative approaches to pest management. This concern seems to stem from a mis-reading of the 2015 IPM Program Accomplishments document in the section on the work history of the IPM Program Data Management subcommittee. The phrase actually reads: "Looked for data other than pesticide use to measure implementation of IPM in CCC; found nothing unique or innovative in the Bay Area or the nation"</u>
<p align="center"><u>The IPM Coordinator does not allow the IPM Committee members and the public adequate time to review documents</u></p>		
<p><u>9/2/15-IPM</u></p>	<p><u><i>From Parents for a Safer Environment (PfSE)</i></u> <u>"People are often reluctant to admit that they have not had time to review documents before voting on minutes and other items. Committee members are likely to just go along with the majority and vote to accept documents as Staff submits them...It is more reasonable to provide at least four to six weeks of time for volunteers to fit in the review amongst a busy schedule." (9/2/15)</u> <u>"...I find it appalling that Staff would propose to totally eliminate the By-Laws language that requires a timely distribution of the meeting minutes to the IPM Advisory Committee. It has been difficult to read all the documents required for review within 5 days [from when] they are provided, which is a recent improvement to providing it 3 days prior to meetings that was practiced before my letter earlier this year...The By-</u></p>	<ul style="list-style-type: none"> • <u>The IPM Coordinator sends out agenda materials in accordance with the Brown Act and County policy, which is 96 hours prior to the time of the public meeting.</u> • <u>At the end of each meeting, the next meeting's agenda is planned so that members are aware of and can plan time for review of long or numerous documents.</u> • <u>Since the inception of the IPM Advisory Committee, the practice has been to distribute the minutes with the agenda materials. Because the by-laws were being updated to reflect the current designations for IPM Committee seats and to change public member terms, the IPM Coordinator proposed changing the by-laws to reflect the current practice regarding distribution of the minutes. On 9/2/15 the IPM Committee members discussed these by-laws changes and heard comment from the public on the issue. The Committee voted to unanimously approve all the by-laws changes.</u>

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	<p><u>Laws currently states that minutes be distributed 1 week after the meeting...I believe it's reasonable to amend [the by-laws] to distributing the materials within 2 weeks after the meeting to give staff time to prepare the meeting minutes, but eliminating this important timeline is not acceptable to the community." (9/2/15)</u></p>	
IPM subcommittees should focus on pesticide use and not on bed bugs or removing turf		
<p>2/16/15-IPM 2/17/15-IPM 2/20/15-IPM 3/2/15-TWIC 3/4/15-IPM 5/6/15-IPM 8/6/15-IPM <u>9/2/15-IPM</u> <u>11/4/15-IPM</u></p>	<p><i>From Parents for a Safer Environment (PfSE)</i></p> <p>Issue of the subcommittees working on bed bugs, a community problem, rather than County-only pesticide issues and working on turf removal around buildings rather than on pesticide use in rights-of-way</p>	<ul style="list-style-type: none"> • Bed bugs affect 1000s of Contra Costa residents, both in municipalities and the unincorporated areas of the County. In order to get relief, desperate citizens are using many different kinds of pesticides in the home, throughout the bedroom, and often on the bedding itself. Reports indicate that frequently pesticides are used to excess and in a manner contrary to the labeled directions. This intimate contact with, and misuse of, pesticides is very troubling. This is a serious issue of pesticide exposure and contamination as well as an issue of the well-being of Contra Costa residents that the County has an obligation to address. • Converting turf to drought-tolerant landscaping accomplishes several things: <ul style="list-style-type: none"> ○ Saves millions of gallons of water in this time of serious drought. ○ Reduces the need for weed control and thus for herbicides. The limited irrigation and wood chip mulch between the drought-tolerant plants is not conducive to weed growth, Few weeds sprout in the dry soil under the mulch, and those that do sprout can often be hand-pulled. ○ Addresses herbicide use near buildings, which is where people have the greatest chance of being exposed to these pesticides. ○ Reduces maintenance hours because turf is a high maintenance plant. ○ Frees Grounds maintenance staff to better manage other landscapes and continue to reduce their use of pesticide. ○ Reduces the amount of electricity used to pump water, the amount of gas used in lawn mowers and trimmers and in trucks to travel to and from sites for maintenance, and reduces the amount of pesticide and fertilizer used in maintaining the turf. This reduces greenhouse gas emissions. ○ Demonstrates that the County is a leader in landscaping more wisely for the arid climate in which we live.
County not tracking pesticide use separately for Public Works rights-of-way/roadsides, flood control channels, and County-owned parcels		
<p>3/2/15-IPM 8/26/15-Email</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"We do not see any good reason why pesticide usage is not being provided to the community for each roadside and flood control program." (3/2/15)</p>	<ul style="list-style-type: none"> • The County has always tracked pesticide use separately for roadsides, flood control channels, and County-owned parcels, but because of a recent change in the way the Department reported pesticide use to the State of California, the state Pesticide Use Reports for FY 12-13 and FY 13-14 were not separated. The database that Public Works uses to track pesticide use cannot produce reports for PfSE that are user friendly since the database was never intended to be a pesticide use reporting tool. As a courtesy to PfSE, the Department has resumed separating pesticide use for the 3 programs when it reports to the state. These

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		Pesticide Use Reports have been provided to PfSE for FY 14-15.
Report the total amount of pesticide used not just the active ingredients		
8/26/15-Email 11/4/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "Report total amount, not just the active ingredients of pesticides used in usage spreadsheet"	<ul style="list-style-type: none"> • In the spread sheet prepared by the IPM Coordinator every year for pesticide use by County operations, the total amount of pesticide product used is recorded as well as the total amount of pesticide active ingredient used for each product. • The California Department of Pesticide Regulation reports pesticide use for the state in pounds of active ingredient. The County has adopted this system so that pesticide use reporting is aligned with the state. But as noted above, the County spreadsheet also records total pounds or gallons of pesticide product used. • The spreadsheet is posted on the IPM website and attached to the annual report.
Corrections to the minutes of the IPM Advisory Committee or its subcommittees requested by PfSE		
5/6/15-IPM 6/9/15-IPM 8/6/15-IPM	<i>From Parents for a Safer Environment (PfSE)</i> Issue of PfSE requesting changes to the minutes and then changes are not made	<ul style="list-style-type: none"> • The IPM Committee members vote on whether or not to make corrections to the minutes. The members do not always vote to make PfSE's corrections, additions, and changes. The IPM Coordinator includes written changes from PfSE (as well as other public comment) as attachments to the official record of the meeting. The official agenda, minutes, public comment, and other attachments are posted on the IPM website.
The herbicide Roundup (active ingredient glyphosate) has been designated as a probable human carcinogen by the World Health Organization's International Agency for Research on Cancer (IARC)		
6/9/15-IPM 7/8/15-IPM 8/6/15-IPM 9/2/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "Considering that RoundUp products with the active ingredient, glyphosate, is [<i>sic</i>] being applied at the rate of nearly 1,000 lbs annually in the Grounds Program alone, and that glyphosate has been listed as a Probable Human Carcinogen by the World Health Organization earlier this year, are there any plans by the county to eliminate this risky chemical to reduce exposure to the community and wildlife?"	<ul style="list-style-type: none"> • The IPM Coordinator has been attending meetings in San Francisco with IPM coordinators and city and county staff from around the Bay to discuss the Roundup issue. At this point we do not have a less hazardous product with equivalent efficacy to replace Roundup, but we continue to look for one. The Grounds Division uses Roundup as a spot treatment and uses a little as necessary. In FY 14-15 the Grounds Division used 311 lbs. of glyphosate, the active ingredient in Roundup. • The most serious risk of exposure to Roundup is to the applicator because that person is in close contact with the material, sometimes daily. The law and the County require applicators to wear personal protective equipment and to be trained annually to prevent exposure. In light of the new probable carcinogen designation, the County is looking at whether there are additional precautions that should be taken to protect workers. • IARC identifies the potential for a chemical to cause cancer but does not quantify any increased risk to people from a chemical so designated nor does it recommend a safe level of exposure. Those designations are left up to regulatory agencies around the world. The County is waiting for the USEPA to complete its review of glyphosate. • On 11/12/15, the European Food Safety Authority ruled that glyphosate probably does not cause cancer in humans despite IARC's findings.
Questions posed during public comment for items not on the agenda are not answered by the IPM Committee		
8/6/15	<i>From Parents for a Safer Environment (PfSE):</i> "...please allow ample time for	<ul style="list-style-type: none"> • The IPM Committee does not take up and discuss issues that are not on the published agenda for the meeting as this would be a violation of the Brown Act. • Members of the Committee can request to have public concerns put on the

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	answering and discussing these 6 questions as listed in order of priority at the next meeting agenda. Community members have been waiting patiently since last year for most of these questions to be addressed."	agenda for a future meeting.
IPM Committee members should RSVP for each meeting		
6/9/15-IPM 7/8/15-IPM 8/6/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "I attended the April 14, 2015 meeting when we waited for over 30 minutes for staff and community members on the [Weed sub] Committee to arrive to no avail. Staff had to regretfully cancel the meeting due to lack of a quorum. ...consider asking for a heads-up from committee members if they cannot attend a future IPM meeting." (6/9/15 and 7/8/15) "Would the county request Committee members to provide in writing, anticipation of absenteeism so that those who arrive at meetings are not waiting for an hour only for the meeting to be cancelled due to lack of a quorum." (8/6/15)	<ul style="list-style-type: none"> • IPM Committee members alert the IPM Coordinator when they know they will be late or will be missing a meeting of either the full committee or a subcommittee. Unfortunately, unexpected circumstances do arise from time to time. • The Weed subcommittee meeting on April 14, 2015 was the first meeting of the full IPM Committee or any of its subcommittees that had to be cancelled for lack of a quorum since the IPM Advisory Committee was formed in 2010.
Quorums have been disregarded in previous subcommittee meetings		
6/9/15-IPM 7/8/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "According to Shirley Shelangoski who had attended all subcommittees between 2012-2014, quorums were <i>not</i> considered in subcommittees until the recent year. Before, subcommittee meetings were held regardless of a lack of quorum."	<ul style="list-style-type: none"> • All subcommittees consider whether or not there is a quorum before proceeding with a meeting. Attendance is tracked in each set of minutes.
Absences on the IPM Committee		
8/6/15-IPM 8/26/15 Email	<i>From Parents for a Safer Environment (PfSE):</i> "Will the county track absenteeism	<ul style="list-style-type: none"> • Absences are tracked in the minutes of every meeting of the full IPM Committee and each of its subcommittees. Attendance at meetings is reported annually to the Board of Supervisors.

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	and provide the data annually so that those who missed more than two in a given year be considered for removal from membership as stated in the By-Laws?"	
Pesticide Use around the Hazardous Materials Office in Martinez		
2/20/15-IPM 8/615-IPM	<i>From Parents for a Safer Environment (PfSE)</i> Issue of members of PfSE observing pesticide use around the Hazardous Materials Office at 4585 Pacheco Blvd. in Martinez without posting	<ul style="list-style-type: none"> • The Hazardous Materials Program rents space from ERRG, a company that occupies the top floor of the building. They and not the County are responsible for maintaining the building and the property. • The County's posting policy does not require private owners of buildings to post their pesticide use. • On 8/6/15, PfSE videoed a Clark Pest Control technician spraying around the building at 4585 Pacheco Blvd. Clark, the contractor for ERRG, was using a pesticide called indoxacarb for ants that had been invading the building, particularly the top floor. Indoxacarb is listed as a "reduced risk" pesticide by the USEPA and is used by Pestec, the County contractor, in baits for cockroaches and ants. Hazardous Materials staff who experienced ant problems were educated by the IPM Coordinator, all food debris was removed, and boric acid baits were used in the two Hazardous Materials offices with ants trailing through.
IPM Contract Language		
11/6/13-IPM 12/5/13-TWIC 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 8/26/15-Email	<i>From Parents for a Safer Environment (PfSE):</i> "the county still does not have IPM language in its contracts with pest control contractors"	<ul style="list-style-type: none"> • 2009: the IPM Coordinator and County staff added IPM language to the contract for pest management in & around Co. buildings. The contractor emphasizes education, sanitation, and pest proofing as primary solutions. Insecticides, mainly in the form of baits, are used as a last resort. For the control of rats and mice in and around County buildings, the County only uses sanitation, education, and trapping. • Special Districts currently hires only 1 contractor for pest control. He is employed by means of a purchase order, which is not an appropriate vehicle for IPM contract language; however, <ul style="list-style-type: none"> ○ as a condition of his employment, he is required to abide by the Public Works "Landscape Design, Construction, and Maintenance Standards and Guidelines"¹ which contain language outlining the IPM approach. This also applies to any other contractor hired by Special Districts. ○ this has been explained to PfSE several times. • Spring 2012: to reinforce the IPM standards, the Special Districts Manager sent a letter to each Special Districts' contractor detailing the IPM approach expected of them. This is an on-going practice and any new contractors will receive the same letter to emphasize the County's IPM principles. • On 11/28/12, Susan JunFish asked for Special Districts contracts and purchase orders; on 11/29/12 the IPM Coordinator sent her the contracts, purchase orders, and letters mentioned above that were sent out by Special Districts.

¹ <http://www.co.contra-costa.ca.us/index.aspx?nid=2147>

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		<ul style="list-style-type: none"> • On 2/14/13, Susan JunFish asked again for copies of the letters and was sent them on 2/15/13. • The Grounds Division occasionally hires a contractor to apply pesticides that the Division does not have staff or equipment to apply itself. The IPM Coordinator considers that these contracts or purchase orders do not require IPM language because the contractor is hired for a specific pesticide application and not to perform IPM services or make any IPM decisions. In these cases the Grounds Division has already gone through the IPM decision making process and has decided the specific work ordered is appropriate.
Unprofessional Behavior by County Staff		
11/6/13-IPM 11/13/13-IO 12/5/13-TWIC 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> “serious pattern of hostile and unprofessional treatment to the community by County staff” “continued name-calling, shouting, and put-downs by county staff and Committee members at IPM meetings” “require staff to take training in order to learn how to work productively in public meetings”	<ul style="list-style-type: none"> • Staff disagree with the assertions that staff have been hostile or unprofessional toward members of PfSE or that staff have engaged in name-calling, shouting, or put-downs in any committee meetings. However, without reference to specific incidents on specific dates, it is impossible for staff to respond in detail. • Members of the public have always had ample opportunity (within defined limits) to participate in all aspects of IPM Committee meetings. • Starting in 2014, IPM full committee and subcommittee meetings will strictly adhere to the Ground Rules adopted unanimously by the IPM Committee on May 5, 2010. The IPM Coordinator will distribute Committee Ground Rules with each agenda packet. This will make public participation more fair and prevent one or a few individuals from dominating public comment. This course of action should limit the potential opportunities for improper discourse.
Make Audio and/or Video Recordings of IPM Committee Meetings		
3/6/14-TWIC 3/2/15-TWIC	“record meetings with a camcorder” “The Community requested to have IPM related meetings recorded to achieve accurate meeting minutes that reflect what actually happened at the meetings and to encourage professional behavior.”	<ul style="list-style-type: none"> • Vince Guise, Agricultural Commissioner in 2013, suggested that meetings be audio recorded (no video). The issue may be taken up at a future IPM Committee meeting. • No other advisory bodies video or audio record their meetings. If the public wishes to record meetings, they may do so and should announce their intention at the beginning of the meeting.
Intimidation of a member of Parents for a Safer Environment by the IPM Coordinator		
2/12/14-TWIC 3/5/14-IPM 3/6/14-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> “we ask that in the future, [County] staff not contact the community and pressure them to retract their public comments”	On November 13, 2013, Margaret Lynwood submitted a written public comment to the Internal Operations Committee. In the comment, she stated that she had “been attending pesticide related meetings and [had] discovered a serious pattern of hostile and unprofessional treatment to the community by county staff.” Since Ms. Lynwood did not provide specific details, and the IPM coordinator had no record of her attending and did not remember seeing her in the last 4 years at any IPM Committee or subcommittee meetings, but only at TWIC and IO meetings, she contacted Ms. Lynwood by phone to understand her concerns and ask her if she felt that County Supervisors or other staff in TWIC or IO meetings had exhibited unprofessional behavior. She said, “No,” and was unable to cite a specific instance when she had witnessed such behavior. The IPM Coordinator did not ask her to retract her public comment.

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Use of Pre-Emergent Herbicides		
11/6/13-IPM 12/5/13-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> “The Community wants to be assured that the Public Works Dept does not use pesticides along the Flood Control District that has [sic] residual activity before a forecasted rainstorm.”	This is an issue about pre-emergent herbicides and was discussed in a subcommittee meeting on 10/29/13 and again in the Advisory Committee meeting on 11/6/13. Both meetings were attended by both Susan JunFish and Shirley Shelangoski of PfSE. The following points were made: <ul style="list-style-type: none"> • Pre-emergent herbicides have residual activity by design because they are meant to prevent the germination of weeds over an extended period of time, sometimes a number of weeks. • Pre-emergent herbicides are used by Public Works as part of their herbicide rotation program to prevent the development of herbicide-resistant weeds. Herbicide rotation is one of a number of best practices strongly recommended by the University of California and many other researchers to prevent herbicide resistance². Creating herbicide-resistant weeds is considered an extremely serious problem by weed scientists throughout the world. • Pre-emergent herbicides are not applied on flood control channel banks; they are used on flood control access roads above the banks. • Pre-emergent herbicides need irrigation or rainfall shortly after their application, typically within a few days to several weeks, to carry them shallowly into the soil where they become active. Because there is no irrigation on flood control access roads, pre-emergent herbicides must be applied prior to a rain event. • The Department follows all label requirements for the application of pre-emergent herbicides (and all other herbicides). Note that a pesticide label is <u>law</u> and must be strictly followed. • The use of pre-emergent herbicides can reduce the total amount of herbicide needed to control weeds in the County because it takes a smaller amount of pre-emergent herbicide to control weeds in an area than it would using a post-emergent herbicide.
Use of Garlon 3A® (triclopyr) herbicide on flood control channel slopes without considering its half-life		
3/5/14-IPM 3/6/14-TWIC 8/26/15-Email	<i>From Parents for a Safer Environment (PfSE):</i> “We want the Public works Department to consider the residual activity (or half-life) of pesticides prior to application. Particularly along the Flood Control District before a forecasted rain that can wash pesticides into the channels and contaminate the	<ul style="list-style-type: none"> • Staff has reviewed EPA documents for triclopyr reregistration; information on triclopyr in the Nature Conservancy’s <i>Weed Control Methods Handbook</i>; information on triclopyr in the Weed Science Society of America’s <i>Herbicide Handbook</i>; and the CA Department of Pesticide Regulation’s “Environmental Fate of Triclopyr” (January 1997); and has found that triclopyr: <ul style="list-style-type: none"> ○ Is practically non-toxic to birds, fish, and crustaceans ○ Is of very low toxicity to mammals and is rapidly absorbed and then rapidly excreted by the kidneys, primarily in unmetabolized form ○ Has an average half-life in soil of 30 days (considered short persistence)

² 2012. Norsworthy, Jason K., et al. Reducing the Risks of Herbicide Resistance: Best Management Practices and Recommendations. *Weed Science* 2012 Special Issue:31-62.

2000. Prather, Timothy S., J.M. DiTmaso, and J.S. Holt. Herbicide Resistance: Definition and Management Strategies. University of California, Division of Agriculture and Natural Resources Publication #8012. 14 pp.

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	water that flows to the Bays"	<ul style="list-style-type: none"> ○ Would have little toxicological hazard to fish and wildlife as currently used in forestry (CCC's use is similar, although the County uses less product per acre than studies cited) ○ Has a low K_{oc}, which indicates mobility in soil; however, studies show that triclopyr is only somewhat prone to lateral movement and is practically not prone to vertical movement. In addition, triclopyr is fairly immobile in the sub-surface flow. ○ Could be used without harm to nearby streams in forestry applications if buffer zones are used around streams and ephemeral drainage routes. ● CCC Public Works Vegetation Management uses Garlon 3A as follows: <ul style="list-style-type: none"> ○ Garlon 3A is a broadleaf contact herbicide with no pre-emergent qualities. It does not kill grasses, so it is often used with Roundup (glyphosate), which does kill grasses. ○ Generally Garlon 3A is not used during the rainy season. ○ It is used on roadsides, flood control channel slopes, and flood control channel access roads. ○ On flood control channel slopes, Garlon 3A is sprayed down the slope no further than the toe of the slope. Flood control channels are trapezoidal in cross section, and the toe of the slope is where the slope meets the flat part of the channel. Depending on the site, the water in the channel is from 10-50 ft. from the toe. ○ If there is a chance of the herbicide getting into the water, Public Works uses Renovate 3, which has the same active ingredient (triclopyr), but is labeled for aquatic use.
Posting for pesticide use		
11/6/13-IPM 12/5/13-TWIC 2/20/14-IPM 2/24/14-IPM 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 4/2/14-IPM 12/4/14-TWIC 2/17/15-IPM 3/2/15-TWIC 8/26/15-Email <u>11/4/15-IPM</u>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"The county staff are still not posting when applying pesticide in parks, along hiking trails, major intersections of rights of ways, along flood control districts where many people, children and their pets frequent."</p> <p>"Posting online of pesticide applications"</p> <p>"Posting online of pesticide use reports from <i>each</i> program as they are generated on a monthly basis [for fulfilling reporting requirements with the state Department of Pesticide Regulation]"</p> <p>Provide a list of where pesticide applications were posted for each IPM program and how many signs were used in 2013. (4/2/14)</p> <p>"The County's Posting Policy</p>	<ul style="list-style-type: none"> ● In 2009 the Departments developed a pesticide use posting policy. The policy does not require posting in "rights-of-way or other areas that the general public does not use for recreation or pedestrian purposes". ● The CCC posting policy, including the provision mentioned above, is consistent with, and very similar to the posting policies of Santa Clara and Marin Counties and with the City of San Francisco. ● The policy was reviewed and discussed by the IPM Committee when it was first developed, and in 2012 was revised to allow web posting and allow permanent signs in certain areas. ● County Departments have verified that they abide by the posting policy. ● The County's website for online posting of pesticide applications (for the areas required by the CCC posting policy) was up and running as of 3/10/15. ● Pesticide use reports that are generated for the California Department of Pesticide Regulation are provided yearly to Parents for a Safer Environment. Monthly reports are available if the public wishes to view them. ● In the 5/27/14 IPM Transparency subcommittee meeting, the IPM Coordinator presented a chart with a list of pesticide application postings and the number of signs use for the 2013 calendar year. ● Note that the County Posting Policy states that posting is "Not required in locations that the public does not use for recreation or pedestrian purposes" Recreation is defined as "any activity where significant physical contact with the

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	<p>states that posting is required where there is foot access by the public or where the area is used for recreation...PfSE has shown you photos of children walking along these access trails...These access roads look just like walking trails along often idyllic looking creeks that the community use on a daily basis." (12/4/14)</p> <p>Concerns about pesticide posting (2/17/15)</p> <p>"Posting is still not done in most treated areas where people have foot access and where they recreate per the CC County's Posting Policy." (3/2/15)</p>	<p>treated area is likely to occur".</p> <ul style="list-style-type: none"> On Pinole Creek, in the photo submitted by PfSE, the Public Works Department does not treat the access road the children are shown walking on. Most of the County's Flood Control access roads are within locked gates with signs saying "Property of Contra Costa. No Trespassing". No one should be jogging or walking along these roads. If PfSE can provide the County with information on specific access roads and specific times when people have been exposed to pesticide spraying, the County will investigate immediately Without information on specific locations, the County is unable to investigate this concern about not posting "in most treated areas where people have foot access and where they recreate..."
Adopting an IPM ordinance		
<p>9/4/13-IPM 11/6/13-IPM 2/26/14-IPM 3/5/14-IPM 3/6/14-TWIC 3/2/15-TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> Issue of adopting an IPM ordinance for the County</p>	<ul style="list-style-type: none"> In 2009, Susan JunFish proposed the need for an IPM Ordinance to the BOS. The Board directed the Committee to investigate the issue. In 2009, County Counsel wrote an opinion recommending the use of an administrative bulletin to supplement the County's IPM Policy. County Counsel continues to stand by their 2009 opinion. At several meetings in 2010 and 2011, the IPM Committee studied the issue and heard presentations from PfSE and from other counties. In 2011 the Committee concluded unanimously that the County should adopt an IPM Administrative Bulletin to supplement the IPM Policy that the County adopted in 2002. In CCC an administrative bulletin serves to direct staff and carries consequences for non-compliance. The IPM Committee found no advantage to adopting an IPM ordinance. In April of 2013, the IPM Administrative Bulletin was adopted. In the fall of 2013, the IPM Committee again reviewed the issue of adopting an IPM Ordinance. For the second time, the Committee saw no advantage to developing an ordinance and once again voted unanimously to recommend the continued use of the IPM Policy supplemented by the IPM Administrative Bulletin.
Reporting "Bad Actor" pesticides		
<p>11/6/13-IPM 12/5/13-TWIC 2/12/14-TWIC 3/5/14-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> Disagreement on how the County should report "Bad Actor"³ pesticides in the IPM Annual</p>	<ul style="list-style-type: none"> Since FY 00-01, the County has been publishing pesticide use figures that include use figures for "Bad Actors". Note that <u>all</u> pesticides used by County operations are reported in the IPM Annual Report, regardless of the toxicity or hazards of the pesticide. At issue is the categorization of pesticides in the report, not whether all use is reported.

³ "Bad Actor" is a term coined by 2 advocacy groups, Pesticide Action Network (PAN) and Californians for Pesticide Reform, to identify a "most toxic" set of pesticides. These pesticides are at least one of the following: known or probable carcinogens, reproductive or developmental toxicants, cholinesterase inhibitors, known groundwater contaminants, or pesticides with high acute toxicity. The pesticides designated as "Bad Actors" can be found in the PAN database on line: <http://www.pesticideinfo.org/>

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3/6/14-TWIC 2/17/15-IPM 3/2/15-TWIC 8/26/15-Email 9/2/15-IPM	Report	<ul style="list-style-type: none"> • Susan JunFish, of Parents for a Safer Environment (PfSE), has been asking that additional pesticides be reported as "Bad Actors". To resolve this issue, the IPM Committee heard presentations from Susan JunFish and held a special meeting of the Data Management subcommittee on March 25, 2013 devoted exclusively to this issue. Dr. Susan Kegley⁴ was invited to speak, as requested by Susan JunFish. • After hearing Dr. Kegley's presentation and discussing the issue with her and with representatives of PfSE, the subcommittee members concluded that the County should report as "Bad Actors" only those that are designated as such in the Pesticide Action Network database. • June 26, 2013: The IPM Committee voted unanimously to make changes to the 2012 IPM Annual to reflect the recommendation from the Data Management subcommittee, as noted above. The IPM Coordinator continues to report pesticides as "Bad Actors" only if they are designated as such in the PAN database.
Use of Paraquat and Other Bad Actors for Aquatic Weed Control by the Department of Agriculture		
2/17/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> "Use of paraquat for Aquatic Weed Control and other broad applied Bad Actor Pesticides by the Department of Agriculture." (Particular mention of South American sponge plant in the Delta was made.)	<ul style="list-style-type: none"> • The Agriculture Department has not used paraquat in any aquatic weed applications and does not apply herbicides to the Delta for aquatic weeds. In the past, the Department has treated purple loosestrife in County waterways that feed into the Delta, but from this point forward they will not be treating any aquatic weeds. • The State Department of Boating and Waterways (DBW) has treated various areas in the Delta for invasive aquatic weeds over the years, and in September 2012, Governor Brown signed legislation authorizing DBW to add South American sponge plant to the list of weeds they treat. • State weed science experts judged that South American sponge plant posed a serious threat to the ecosystems in California waterways. This was based on research, the biology of the plant, and the rapid rate of its spread in California. • Judicious use of herbicide to eliminate small infestations before they take over and completely clog Delta waterways is an excellent use of herbicide and will prevent huge expenditures of labor and herbicide in the future. This kind of preventive use of a pesticide to reduce the necessity to use large amounts of pesticide when the pest has built to great numbers is a recognized and legitimate IPM tactic.
Providing comments on the kestrel study and rodenticides use issues		
11/6/13-IPM 12/5/13-TWIC 2/20/14-IPM 2/24/14-IPM 3/5/14-IPM 3/6/14-TWIC 8/26/15-Email	<i>From Parents for a Safer Environment (PfSE):</i> "We have asked the Dept of Ag and the IPM Advisory Committee to provide comments on the Kestrel study and PfSE's Draft LD50 document in the past two years." In conjunction with this research	<ul style="list-style-type: none"> • On 9/18/12 Susan JunFish circulated to members of the IPM Committee the abstract from the kestrel study mentioned at left. On 2/4/13, the IPM Coordinator circulated the actual research paper to all the members of the IPM Committee. • On November 22, 2013, Vince Guise, Agricultural Commissioner, sent a formal response to Susan JunFish regarding the kestrel study. (TWIC and the IPM Committee Chair and IPM Coordinator were cc'ed on this communication.) • On January 7, 2014, Vince Guise re-sent the formal response to Susan JunFish and Shirley Shelangoski. On January 16, 2014, Shirley Shelangoski confirmed

⁴ Ph.D. Organic/Inorganic Chemistry; Principal and CEO, Pesticide Research Institute; former Senior Staff Scientist for Pesticide Action Network (PAN); instrumental in the development of the PAN database.

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	<p>paper, PfSE has brought up its concern about the rodenticides used by County operations.</p> <p>“Contractors [in Special Districts] use pesticides [rodenticides] before demonstrating alternatives first.” (8/26/150)</p>	<p>having received the document.</p> <ul style="list-style-type: none"> • Susan JunFish asked the Committee to comment on the study, and the formal response was provided by the Agriculture Dept. • Regarding “PfSE’s Draft LD50 document”, neither the Committee nor County staff can comment on data calculated by Susan JunFish that have no references or clear calculation methods. This was conveyed to PfSE in the Department of Agriculture’s Kestrel response letter. • Note that as part of the Department of Agriculture’s ground squirrel program, the Department surveys ground squirrel treated areas for ground squirrel carcasses (or any other carcasses). Staff rarely find dead ground squirrels above ground, which is consistent with U.C. research in the state and the experience of other agencies. Staff has never found secondary kill, such as raptors or predatory mammals, in areas the Department treats. This does not mean, nor does the County claim, that no secondary kill ever occurs in the course of the County’s treatment program. • The IPM Committee did not discuss the research paper specifically; however, the Committee and County staff took the following steps regarding the rodenticide issue: <ul style="list-style-type: none"> ○ In 2012, the Agriculture Dept. conducted an in-house trial of live-trapping of ground squirrels as a possible alternative to rodenticides treatment. See below for more detail. ○ At their January 2013 meeting, the Committee heard a presentation from the Agriculture Dept on the trapping study and heard a presentation from the State Department of Fish and Wildlife on secondary poisoning of raptors and other predators and the state’s efforts to restrict use of the more toxic 2nd generation anticoagulant rodenticides (CCC does not use 2nd generation anticoagulants because of their toxicity and their hazards to non-target animals that consume poisoned rodents). ○ At their March 2013 meeting, the Committee heard a presentation from Dr. Jim Hale on wildlife issues in CCC that included discussion of the impacts of rodenticides. ○ At their May 2013 meeting, the Committee heard a presentation from Mt. Diablo Audubon on their campaign to curb the use of 2nd generation rodenticides. ○ The Agriculture and Public Works Departments jointly prepared a map of the County marking where rodenticides are used by the Agriculture Dept. This map was presented in separate meetings to Supervisors Gioia, Mitchoff, and Andersen, and to Susan JunFish & Shirley Shelangoski of PfSE. In these meetings the Agricultural Commissioner explained the Department’s ground squirrel program and the live trapping study. ○ The Agriculture Dept. prepared a very detailed decision making document for ground squirrel management in the County to record their decision making process and explain the complexities involved in their decisions, including biology, safety, efficacy, cost and the goals of the program. This document was discussed extensively in a subcommittee meeting and again in a regular Committee meeting. PfSE members were present and participated in the discussion. ○ In 2013, the Agriculture Dept revised its ground squirrel baiting methodology to make it safer for staff, to make applications more precisely targeted, and to

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		<p>reduce the amount of bait used each season. The amount of bait used by the Department has been reduced by over 50% since 2011. Use has gone from 35,915 lbs in 2011 and 14,271 lbs in 2013. 14,271 lbs of bait is 1.4 lbs. of actual diphacinone.</p> <ul style="list-style-type: none"> o In February and again in August of 2013, the IPM Coordinator investigated rodenticides use by contractors to Special Districts. She presented her findings to the Committee at the 9/4/13 meeting. o The Special Districts' contractor has reduced his use of anticoagulant bait from 188 lbs in FY 12-13 to 88 lbs in FY 13-14 and to 53.5 lbs in FY 14-15. The amount of actual anticoagulant active ingredient in 53.5 lbs is 0.0027 lbs (0.04 oz). The contractor has increased trapping and is not using any of the more toxic and dangerous 2nd generation anticoagulants. o On 3/5/14, the IPM Committee heard an update from the California Department of Fish and Wildlife on the regulations concerning 2nd generation anticoagulant rodenticides and on secondary poisoning of raptors and mammalian predators by anticoagulant rodenticides.
<p>Trapping for ground squirrels</p>		
<p>12/5/13-TWIC 2/20/14-IPM 2/24/14-IPM 3/5/14-IPM 3/6/14-TWIC 10/9/14-TWIC 1/14/15-IPM 8/26/15-Email</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>"[PfSE] asked TWIC to instruct the Department of Agriculture and Public Works Dept to use trapping methods [for ground squirrels]"</p> <p>"Santa Clara spends only \$25/ground squirrel trapping & removal"</p> <p>"Isn't it worth the effort to learn how the other counties are doing using only trapping for ground squirrel control?" (10/9/14)</p> <p>"One cannot compare efficiency of our [County] staff applying rodenticides and compare that to them trapping and stacking up overtime costs during the learning curve...A good-faith comparison would have been to utilize expert trappers vs our staff applying rodenticides, and then comparing costs." (10/9/14)</p> <p>"[The IPM Coordinator] states that the county would incur a charge of \$16,720 per linear mile for ground squirrel control if we paid a contractor who charges \$25/squirrel trapped. This is very speculative and we would like to see the county take bids from</p>	<ul style="list-style-type: none"> • In 2012, the Agriculture Department ran an extensive, in-house ground squirrel live trapping trial to determine the feasibility of using live traps to protect critical County infrastructure from ground squirrel burrowing. <ul style="list-style-type: none"> o The trapping was successful in that staff were easily able to capture 152 ground squirrels in the 1,200 linear foot trial area along a County road over the 5 day trial period. o The squirrels were euthanized on site by the California Department of Fish and Wildlife. o Unfortunately, squirrels from the surrounding area quickly moved into the vacant burrows. <u>This makes trapping ineffective in areas with surrounding pressure from ground squirrels.</u> o When the Department uses rodenticide bait, the squirrels do not move back into the vacant burrows for an extended period of time. The Department surmises that because baited squirrels die mostly in their burrows, the carcasses repel any newcomers. o The Department found that live trapping would be prohibitive. It would cost \$5,074/linear mile compared to \$220/linear mile using bait. The Department treats around 925 linear miles of roadway each year. o Note that along roadsides, the Department spreads bait in a 12 to 15 ft wide swath at a rate of 2 to 3 oat kernels per square foot only in areas where ground squirrels are active. This treatment method takes advantage of the natural foraging habit of the ground squirrel, an animal that is highly adapted to finding individual seed kernels on the ground. o The Department verified the expense by contacting 2 pest control contractors. Using their fees per hour or per squirrel trapped, the Department estimated that the cost to use a contractor to trap ground squirrels would be between \$12,524 and \$16,700 per linear mile. This does not compare favorably to the Department estimate of \$5,074/linear if work were done by Department staff. o <u>Note that at the \$25/squirrel rate quoted by PfSE, it would cost the County \$16,720/linear mile if the ground squirrel catch rate were</u>

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	<p>trappers and share the proposals with the Committee.” (1/14/15)</p> <p>“Pilot Trial of rodenticides vs tapping done in 2012, biased & scientifically indefensible.” (8/26/15)</p> <p>“Cost of trapping inflated.” (8/26/15)</p>	<p>similar to the 152 squirrels/1,200 linear feet. This is 3 times more than it cost for Agriculture Department personnel to trap over a linear mile, so using a contractor would not save money, even if this method were effective.</p> <ul style="list-style-type: none"> ○ One of the pest control contractors who was contacted for an estimate said he had also observed the ineffectiveness of trapping in areas with surrounding ground squirrel pressure. ○ The Department also observed some other unexpected outcomes: <ul style="list-style-type: none"> ▪ Traps were checked daily, but staff found squirrels bloodied and wounded from fighting with each other or trying to chew their way out of the traps. ▪ Traps were vandalized by the public even though large signs warned people to leave the traps alone. This exposed the public to health risks from bites and scratches and from transmissible diseases carried by ground squirrels. ○ In certain small areas that have a limited number of ground squirrel colonies, live trapping may be a viable alternative. <ul style="list-style-type: none"> • Santa Clara County Regional Parks find live trapping effective for their limited use of the method. They trap squirrels around Regional Park buildings to prevent undermining of foundations. This is a very small area compared to the hundreds of miles of roads involved in CCC. Park rangers are close by to educate the public and to observe the traps continually. This reduces vandalism and allows park personnel to have squirrels dispatched soon after they are trapped, which prevents harm to the squirrels from fighting or gnawing the cage. • In March 2006, the Ventura County Board of Supervisors directed county staff to avoid the use of anticoagulant rodenticides within county-owned properties and facilities. To address these concerns, the county hired a consultant and formed an ad hoc committee. The County developed an IPM program and as a result of a subsequent study, the ad hoc committee <i>and</i> the Board recommended broadcast baiting with diphacinone as the primary control method for ground squirrels. The Board approved this program in December 2006. • The CCC Agriculture Department has also evaluated kill traps but has chosen not to use that method for many reasons, including the increased risk of taking non-target animals, the risk of injury to curious children, and the expense.
<p>CCC is the only Bay Area county using rodenticides for ground squirrels</p>		
<p>12/5/13-TWIC 10/9/14--TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>“[Contra Costa is] currently the only Bay Area county to continue to use the archaic and non-specific to target pest method of rodenticides to kill grounds squirrels”</p> <p>“It’s great that the Agriculture Department has decreased usage of rodenticides from 36,615 pounds [of treated grain] applied two years ago to 14,391 pounds [of treated</p>	<ul style="list-style-type: none"> • Contra Costa County is not the only Bay Area county using rodenticide bait to manage ground squirrels. <p>Note that CCC uses diphacinone-treated bait to protect critical infrastructure in the County from damage caused by ground squirrel burrowing. Diphacinone is a 1st generation anticoagulant that is less toxic and less persistent in animal tissues than 2nd generation anticoagulants. The Agriculture Department endeavors to maintain a relatively ground squirrel-free 100 ft buffer along various County roads (mainly in East County), along levees and railroad embankments, and around earthen dams and bridge abutments. To maintain this buffer, the Department treats a 12 to 15 ft. swath.</p> <ul style="list-style-type: none"> ○ The Santa Clara Valley Water District uses diphacinone- and chlorophacinone-treated bait in areas similar to the sites the CCC

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	<p>grain] applied in the most recent fiscal year. However it is still 14,301 pound [sic] more of bait applied than all Marin, San Francisco, and Santa Clara counties combined that do not use any rodenticides at all in open space." (10/9/14)</p>	<p>Agriculture Department treats for the CC Water District.</p> <ul style="list-style-type: none"> o Alameda County engages in a ground squirrel treatment program using diphacinone bait that is very similar to CCC. They treat roadsides and levees and Zone 7 Water District sites and use a similar amount of diphacinone-treated bait. • San Francisco City and County allows the use of bromadiolone bait (a 2nd generation anticoagulant rodenticide) at the SF Airport and by commercial lessees on city properties that are not adjacent to natural areas. Second generation anticoagulants are more toxic and more persistent in the tissues of poisoned animals than 1st generation anticoagulants, such as the diphacinone that CCC Department of Agriculture uses. Bromadiolone persists in liver tissues for 248 days compared to 90 days for diphacinone which makes sub-lethally poisoned animals walking hazards for predators much longer. • Note that San Francisco allows the use of diphacinone for baiting rats in areas with high public health concerns and where trapping is infeasible. CCC uses only trapping to control rats and mice in and around County buildings. But note also that CCC is far less urbanized than San Francisco, and therefore does not have the same kind of pest pressure from rats. • Marin and Napa County Public Works Departments reported that they have nowhere near the kind of ground squirrel populations that East Contra Costa County has, and consequently, they don't do anything about the few ground squirrels along their roads.
<p>The County should use volunteers and free labor</p>		
<p>12/5/13-TWIC 3/6/14-TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> The County should use free labor programs</p>	<ul style="list-style-type: none"> • This could be particularly helpful around County buildings. The Grounds Manager would welcome Parents for a Safer Environment (PfSE) volunteers to pull weeds at particular sites, but PfSE would first need to negotiate with the County to determine if PfSE volunteers would be permitted work on County landscaping. If the work were approved, PfSE would need to organize and supervise the volunteers. • Note that County unions have protested the use of inmate labor for jobs that could be filled by union members. The union recently won a grievance against the Sheriff's Department regarding the use of inmate labor for grounds maintenance work. The union has filed a grievance against the fire department regarding the use of inmate labor to clear brush. The Grounds Manager does not anticipate that PfSE volunteers pulling weeds would precipitate these kinds of union actions. • In the County's other IPM programs, using volunteers is more difficult. <ul style="list-style-type: none"> o "Free" labor involves considerable County resources including outreach to solicit volunteers, planning and organizing work sessions, staff time for training volunteers, transportation of volunteers, equipment for volunteers and staff time for supervision. o Almost all of the Agriculture Department's noxious weed program involves activity on private land or on lands that are not owned or managed by the County. Use of volunteer help in these areas would involve liability for those land owners or managers. o Much of the Public Works Department's creek and roadside vegetation management involves work in dangerous areas such as roadsides or steep and rocky slopes and requires the use of hazardous equipment such as chain saws and brush cutters. County liability for volunteers performing this

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		<p>kind of work would be extremely high.</p> <ul style="list-style-type: none"> o The County's structural IPM program is not suited to the use of volunteer labor. • Note that the County does use volunteers, most notably in creek restoration and clean up, for creek water quality monitoring and for outreach to the public about creek water quality and the value of healthy creeks and watersheds.
Grazing has no significant impact on water quality		
12/4/14-TWIC 8/26/15-Email	<i>From Parents for a Safer Environment (PfSE):</i> "...[I]n each of the four case studies, grazing had NO significant impact on water quality. It is my hope that this research can provide decision makers with confidence that managed grazing is an effective, economical and safe vegetation management tool along watercourses." "Small PfSE Pilot Trial in 2009 showed no contaminants downstream of grazing." (8/26/15)	<ul style="list-style-type: none"> • The County is aware that grazing does not have a significant impact on water quality. Economics and not water quality is the limiting factor in the vegetation management situations in the County. Public Works continues to expand its grazing program where it is most appropriate and/or cost-effective, and grazing has become a permanent tool in the County's IPM Toolbox.
The County should expand goat grazing and competitive planting		
12/5/13-TWIC 3/5/14-TWIC 2/17/15-IPM 8/2615-Email	<i>From Parents for a Safer Environment (PfSE):</i> "The County should expand the competitive planting and goat grazing programs" "[One decision-making document] asserts that goat grazing costs much more than herbicide spraying; however it appears the cost of grazing during the in-season are [sic] being compared with herbicide usage. Other case studies we are evaluating show that grazing is cost effective and even cheaper than herbicide usage." (2/17/15) Grazing costs are inflated and cost of herbicide use is deflated. (8/2615)	<ul style="list-style-type: none"> • The County Flood Control District is partnering with Restoration Trust, an Oakland-based non-profit, in a native planting experiment along Clayton Valley Drain (near Hwy 4 adjacent to Walnut Creek). The study involves planting 2 species of native sedge and 1 species of native grass. These are perennial species that stay green year round and are resistant to fire. The plants are compatible with flood control objectives because they do not have woody stems, and during flood events, they would lie down on the slope, thus reducing flow impedance. They are not sensitive to broadleaf herbicides that will be needed to control weeds at least until the plants have spread enough to outcompete weeds. County volunteers installed the first plantings on December 7, 2013 • Note that it is conceivable that herbicides may always have to be used on these plantings to prevent the area from being overrun with weeds because the surrounding weed pressure is very high. • Restoration Trust will be monitoring the test plots for the next 5 years to assess the survival of the native plants and their degree of successful competition with non-native annual species. The County will gather information over the next few years to determine whether, how, and where to expand this kind of planting. The County cannot expand this project without data on its costs and viability. • Over the last 3 years, the Public Works Department has expanded its use of goat grazing considerably. In 2012 they grazed 99 acres, in 2014 they grazed 336 acres, and in 2015 they project around 300 acres. It is now a regular

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		<p>management tool for the Department. Every site the County manages differs in the ease with which goats can be used and their suitability for managing vegetation. The Department uses goats where they are appropriate and cost effective, and continues to gather data on costs and long-term effectiveness at individual sites. Cost is affected by many factors:</p> <ul style="list-style-type: none"> o The size of the site—loading and unloading the animals is a fixed cost, so small sites cost more per acre than large sites o The ease of access to the site—the harder it is to get the goats into an area, the more expensive it is o The availability of water—if water must be trucked in, the cost is greater o The security of the site—the more fencing that is required and the more the fences must be taken down and erected within the site both increase the cost o The time of year—because of the law of supply and demand, cost is greater during the peak grazing season o The presence of endangered species—sites with endangered species and other restrictions from the State Dept. of Fish and Wildlife are good candidates for grazing regardless of the cost <ul style="list-style-type: none"> • Although the cost of off-season grazing is less expensive than during the peak grazing season, Public Works cannot effectively manage all the weeds that grow in the Flood Control District only with off-season grazing.
<p>Considering least-toxic alternatives before choosing pesticides</p>		
<p>12/5/13-TWIC 2/26/14-IPM 2/17/15-IPM 8/6/15-IPM 8/26/15-Email 11/4/15-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>“Staff has still not demonstrated that for <i>each</i> pest control problem, least toxic alternatives were evaluated prior to choosing pesticides.”</p> <p>Estimates for costs of herbicide applications need to include cost of permits, tracking requirements, storage of chemicals, licensing, training, etc.</p> <p>“The IPM Advisory Committee has not yet reviewed several key data in the [decision-making documents] that justify using broadcast herbicide spraying along Right of Ways and rodenticide usage in open space.” (2/17/15)</p> <p>“Also, has the county investigated least toxic methods in accordance with the IPM Policy?” (8/6/15)</p>	<ul style="list-style-type: none"> • In 2012, the IPM Committee developed a form for recording IPM decisions made by the Departments. In 2013, each IPM program in the County produced at least 1 decision-making document for a specific pest or pest management situation (the Agriculture Department produced 2 documents that year). • These documents show which least-toxic alternatives are considered and tested, which are being regularly employed, which are not, and why. • In 2013, each decision-making document was extensively reviewed by the Decision-Making subcommittee with PfSE members in attendance. • Recording the thought processes and decision-making path for each pest or pest management situation takes considerable time (approximately 40 hours of work per document). • In 2014, the Decision-Making subcommittee reviewed and, after numerous revisions, accepted 4 more decision-making documents. These discussions were conducted in public with members of PfSE in attendance. • In 2015, the Weed subcommittee reviewed and revised 1 more decision-making document which covered how the County decides to use grazing as a management tool. • In 2014, the Cost Accounting subcommittee chose to research the costs associated with altering landscapes around County buildings to require less maintenance, less water, and less herbicide. The subcommittee concluded that this is a very worthy goal, but more complicated to achieve than expected. Sites must be considered individually because one plan will not fit all, and in the midst of severe drought, it is not the time to begin replanting. The subcommittee also explored the idea of replacing lawns with artificial turf, but decided that it is not the answer except in very specific, limited situations. Artificial turf has high up-front costs, still requires maintenance, can become infested with weeds growing

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		<p>in soil that accumulates on top of the mat, and has environmental consequences at the end of its life,</p> <ul style="list-style-type: none"> • Herbicide treatment costs reported in the 2013 IPM Annual Report included all associated costs mentioned by PfSE. When costs are compared in future documents, every effort will be made to include all related costs for both pesticides and alternatives.
Excessive pesticide use in CCC		
<p>12/5/13-TWIC 2/26/14-IPM 12/4/14-TWIC 3/10/15-IPM</p>	<p><i>From Parents for a Safer Environment (PfSE):</i> Contra Costa County uses more pesticide than any other Bay Area County (or, than several Bay Area Counties combined)</p> <p>“lack of progress is evident in that the county has not significantly altered their use of pesticide since 2009”</p> <p>“The single most underlying problem I see in the IPM Program is that there is little to no leadership in guiding the County to reduce pesticides. (12/4/14)</p>	<ul style="list-style-type: none"> • The assertion that CCC uses more pesticide than any other Bay Area County, or other counties combined, is hard to evaluate since staff have not seen current pesticide use figures for County operations in other Bay Area Counties. • This could be researched, but would take time. It is difficult to compare counties, all of which vary greatly in their size, their budgets, their staff, their pests, their weather, and the kinds of responsibilities they choose to undertake. Staff feel that comparing pesticide use in various counties is not particularly relevant to how well Contra Costa County operations are implementing IPM. • In 2012 and 2013, the IPM Data Management subcommittee undertook to find additional metrics to evaluate the County's IPM programs. This proved to be a difficult task, and the committee's research did not discover any unique or innovative measures for evaluating IPM programs in other Bay Area counties, or across the U.S. • The subcommittee agreed that pesticide use data do not reveal whether the County is implementing IPM, and so in 2012, the subcommittee developed the IPM Priority Assessment Tool. This is a compilation of IPM best management practices (BMPs). The subcommittee asked the Departments to fill out the form in 2012 and 2013 and report the percentage of implementation of each of the BMPs. • It is important to understand that pesticide use can increase and decrease from year to year depending on the pest population, the weather, the invasion of new and perhaps difficult to control pests, the use of new products that contain small percentages of active ingredient, the use of chemicals that are less hazardous but not as effective, the addition or subtraction of new pest management projects to a department's workload, and cuts or increases to budgets or staff that change priorities or workload. • Since FY 2000-2001, the County has reduced its pesticide use by 77%--from 18,931 lbs of active ingredient in FY 00-01 to 4688 lbs of active ingredient in FY13-14. • Since FY 2000-2001, each Department has been evaluating their pesticide use and researching options for eliminating or reducing pesticide use. County operations have eliminated the use of 22 of the 31 “Bad Actor” pesticides that they had been using. • The County's pesticide use trend follows a trend typical of other pollution reduction programs. Early reductions are dramatic during the period when changes that are easy to make are accomplished. Once this “low-hanging fruit” has been plucked, it takes more time and effort to investigate and analyze where additional changes can be made. The County is entering this period, and if further reductions in pesticide use are to be made, it will require time for focused study and additional funding for implementation. • Note that County operations use about 2% of all the pesticide (active ingredients)

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		<p>that is required to be reported in the County. The total reported to the state does not include homeowner use, which researchers suspect is a considerable amount.</p>
<p>CCC should do more IPM training and outreach to County staff and the public</p>		
<p>12/5/13-TWIC</p>	<p><i>From Parents for a Safer Environment (PfSE):</i></p> <p>“the County IPM Coordinator and the IPM Advisory Committee [should] provide annual IPM training and outreach programs to both county staff and the public”</p> <p>The County should “provide training and conferences such as those conducted by Santa Clara and San Francisco counties which train hundreds of interested participants.”</p>	<ul style="list-style-type: none"> • The IPM Committee is an advisory body to the Board of Supervisors and does not have a budget, nor does it have the staff or the mandate to provide outreach and training. • There is no need to duplicate San Francisco and Santa Clara’s regional IPM conferences, and it would be impossible for the IPM Coordinator to do so without staff and budget. • In 2012, the IPM Coordinator partnered with cities in CCC to provide a half-day landscape IPM training to City and County staff and will probably do so again in the future. • The IPM Coordinator provides extensive education in person and over the phone to County staff and Contra Costa citizens on bed bug awareness and an IPM approach to managing bed bugs. The IPM Coordinator produces educational materials on bed bugs for professionals and lay people. Materials are housed on the Health Services bed bug website (cchealth.org/bedbugs). • The Departments provide annual training to County staff that includes IPM. • County staff attend numerous trainings and conferences that include IPM training in order to stay current on pest management research and to maintain their various licenses. • The Department of Agriculture has a biologist on-call from 8 AM to 5 PM each weekday to answer questions from the public about pests and pest management. Biologists base their responses on IPM principles and on materials and resources from the U.C. Statewide IPM Program. • Every day in the course of their work, County staff from Public Works, Health Services and the Department of Agriculture engage citizens in dialog about the pest management work the County does and the IPM principles the County employs. • The Department of Agriculture provides many training sessions each year on pesticide safety (including IPM issues) to growers, farm workers, agencies, and the pest control industry. • The Department of Agriculture is a member of the <i>Egeria densa</i> Integrated Pest Management Committee and developed the Contra Costa Delta/Discovery Bay Region Brazilian Waterweed (<i>Egeria densa</i>) Integrated Pest Management Plan. • The County Clean Water Program sponsors an annual Bay Friendly Landscaping training for County staff and professional landscapers throughout the county. This training includes information about IPM and about reducing inputs into and outputs from landscaping activities to prevent pollution in creeks and the Bay. • The County Clean Water Program provides support for watershed coordinators and friends of creeks groups that coordinate volunteers to conduct general outreach to the community about water quality in creeks and the value and importance of wildlife habitat, watersheds, and creek restoration. • The County Clean Water Program provides support to the Bringing Back the Natives Garden Tour which educates the public about the many benefits of

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		<p>gardening with California native plants.</p> <ul style="list-style-type: none"> • The County Clean Water Program supports the Our Water, Our World Program in Contra Costa County (a program originally developed by CC Central Sanitary District). This program provides in-store IPM education directly to consumers who are purchasing pesticides. IPM training is also provided for nursery and hardware store employees. • In 2014 the County Clean Water Program launched 3 other IPM and pesticide public education programs. • The Contra Costa Master Gardener Program trains volunteers with a curriculum that includes IPM. Master Gardener volunteers are available Monday through Thursday from 9 to Noon to answer gardening and pest management questions from the public. Advice is based on materials and resources from the U.C. Statewide IPM Program. Master Gardeners also provide presentations on gardening and IPM to a broad cross section of Contra Costa citizens. • The IPM Coordinator has been working closely with the Cities of El Cerrito and San Pablo over the past 2 years to develop IPM guidance for cities on implementing IPM and to develop standard operating procedures for various pests. • The IPM Coordinator accepts many speaking engagements throughout the County and the region to provide training on IPM and especially on bed bug issues. • The IPM Coordinator and other County staff have been working closely with cities to provide guidance on the crises of bed bug infestations they are experiencing. • The IPM Coordinator is working with Code Enforcement in the City of Richmond to develop bed bug training for Code Enforcement officers throughout the state. • Every month the IPM Coordinator spends a significant number of hours talking with citizens about least-hazardous bed bug control. • The Agricultural Department represents the California Agricultural Commissioner's and Sealer's Association as the sitting member of the California Invasive Species Advisory Task Force. • In October 2013, County staff attended a Parents for a Safer Environment's IPM workshop and found it informative. Parents for a Safer Environment can provide a useful community service by hosting more such workshops. • In April 2014, the IPM Coordinator provided an in-person IPM tutorial for the Grounds Division's new spray technician. • In May 2014, the IPM Coordinator arranged an IPM workshop given by Pestec, the County's Structural IPM Contractor, for the County's Head Start Home Base educators. Pestec presented information on how to prevent pests in the home and simple, non-toxic strategies for low income families to use to combat pest invasions. Home Base educators provide in-home education to Head Start families. • In May 2014, the Contra Costa Environmental Health Division sponsored a workshop on IPM for bed bugs for County Environmental Health Inspectors and code enforcement officers in Contra Costa municipalities. • In July 2014, the County hosted a presentation by the U.C. Horticultural Advisor on how landscapes should be managed during drought and how to plan landscapes for what is likely to be continual droughts. County staff, both administrators and maintenance personnel, along with park personnel from the

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		<p>city of Danville attended.</p> <ul style="list-style-type: none"> • In July 2014, the IPM Coordinator provided a bed bug awareness training for the residents of Meadow Wood at Alamo Creek, a senior living facility in Danville, along with subsequent consultation with individual residents and staff. • In September 2014, the IPM Coordinator provided the Greater Richmond Interfaith Program with assistance for a bed bug infestation at their Family Housing Program. • In February 2015, the IPM Coordinator met with staff at the Bay Area Rescue Mission in Richmond to discuss bed bug prevention. • <u>In June 2015, the IPM Coordinator completed an IPM Guidance manual for municipalities in Contra Costa County with help from Beth Baldwin of the County Clean Water Program and Stephen Pree of the City of El Cerrito. The three of them presented an IPM workshop for municipal staff that included information on how to use the manual and resources available to them within the County.</u> • <u>In November 2015, the IPM Coordinator and Luis Agurto from Pestec provided a bed bug training for County Adult Protective Services staff who have been encountering bed bug problems in their clients homes more frequently.</u>
Violations of the Brown Act		
12/5/13-TWIC 3/2/15-TWIC 8/6/15-IPM	<i>From Parents for a Safer Environment (PfSE):</i> “continued violations of the Brown Act including repeated disposal of original meeting minutes, repeated failure to provide public records at all or much later than 10 working day, and meeting minutes that do not accurately reflect comments made or not made by participants” “our county’s IPM policy and the Public Records Act have been violated at least on a quarterly basis by staff since 2009.” (3/2/15) “We are still waiting to learn where Fusilade II Turf and Ornamental herbicide had been applied by the Grounds Program in the past years” (8/6/15)	<ul style="list-style-type: none"> • Staff always respond within 10 days to public records requests. In almost all cases staff respond within 1 to 3 days. The only reason for delay has been to find and collect documents that have been requested. • The County takes public records requests seriously and responds promptly to each one. • Hand written meeting minutes are recycled after official minutes have been typed up. Official minutes, once approved by the IPM Committee, are posted on the IPM website. • The IPM Committee approves the minutes for each meeting. The public is provided time to comment on the minutes, and as the IPM Committee sees fit, the minutes are corrected. • Staff are ready to respond to any specific instances or claims of Brown Act violations. Staff maintain written logs of all public records requests. • On July 8, 2015 Susan JunFish formally requested information about Fusilade use by the Grounds Division. On July 16, 2015 the IPM Coordinator provided her with a chart, created for her, showing how much and where Fusilade was used (0 used in FY 12-13 and FY 14-15 and 0.1 pound used once in a parking lot in FY 13-14).
Financial incentives to serve on the IPM Committee/Conflict of interest on the IPM Committee		
12/5/13-TWIC 1/14/15 IPM 3/2/15-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> The County should “discourage financial incentives of [IPM Committee] applicants by providing a minimum of a 5 year moratorium for those who serve to be eligible for receiving a county contract or	<ul style="list-style-type: none"> • Staff disagree that there are any kinds of financial incentives to serve on the IPM Advisory Committee, but will defer to the Board of Supervisors on whether to impose such a moratorium. • If the public has evidence of financial incentives for serving on the IPM Committee, we request that they bring that evidence forward. • Michael Baefsky was not a member of the IPM Advisory Committee when he was asked to contract with General Services to advise the County on non-chemical methods to manage weeds on the Camino Tassajara medians in 2009. His

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	any funding" "In 2009, Michael Baefsky, a community representative of the IPM Advisory Committee received a contract with the former General Services Department according to a document from Terry Mann, former Deputy Director of the General Services Dept. After receiving that contract, Mr. Baefsky's behavior on the Committee changed significantly."	contract ended in 2009. That year he attended meetings of the IPM Task Force, an informal body with no official appointees. The IPM Advisory Committee was not created until 2010, and he was appointed by the Board to an At-Large seat in 2010. He has held no contracts with the County since 2009. <ul style="list-style-type: none"> The IPM Committee bylaws state the following in sections III.B.2&3: <ul style="list-style-type: none"> "Contractors who provide pest management services to the County may not serve on the Committee. The exception is A.1.d., above, the Current Structural Pest Management Contractor with General Services Department. "If a member's work status or residence changes, he/she must notify the Committee in writing, within thirty (30) days of their change in status. The Chair will review the change of status and determine if the member is still eligible for membership according to these by-laws. If they are found to be ineligible, the member will be asked to resign his/her position."
Monetary compensation or gifts from pesticide salespeople		
12/5/13-TWIC 3/2/15-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> "We are requesting that TWIC require that all staff involved in ordering pesticides from salespersons fill out a form disclosing any monetary compensation or any other forms of gifts from pesticide salespersons"	<ul style="list-style-type: none"> County staff do not receive (and have not been offered) gifts or compensation in any form from pesticide salespeople or any other salespeople. Accepting gifts or compensation would be against County policy⁵ and would subject staff and their departments to disciplinary action If the public has evidence of County staff taking bribes, we urge the public to provide that evidence for investigation.
IPM Committee did not accept all of Parents for a Safer Environment's priorities as their own		
2/12/14-TWIC	<i>From Parents for a Safer Environment (PfSE):</i> The IPM Committee is planning to include only 70% of PfSE's priorities as the Committee's priorities for 2014	<ul style="list-style-type: none"> The IPM Committee devoted more than an entire meeting to the discussion of its work priorities for 2014. The public was fully involved in the discussion and PfSE provided documents and testimony detailing their own priorities. The Committee had a thorough discussion and then voted on which priorities to pursue.
IPM Coordinator references statements by members of Parents for a Safer Environment that were never made		
3/2/15	<i>From Parents for a Safer Environment (PfSE):</i>	<ul style="list-style-type: none"> In her written public comments to TWIC on February 12, 2014, Susan JunFish states: "We believe that the Committee is planning to address about 70% of the priority issues the community has raised, so we are hopeful. The two areas where

⁵ California Government Code § 1090 prevents county employees and officials from being "financially interested" in any contract made by them in their official capacity, or by anybody or board of which they are members.

California Government Code § 81000 et seq., known as the Political Reform Act, requires, among other things, that certain public employees perform their duties in an impartial manner, free from bias caused by their own financial interest. See Cal Gov Code § 81001(b). It also prevents certain employees from using their positions to influence county decisions in which they have a financial interest. See Cal Gov Code 87100. The Act also requires certain employees and officers to file a Form 700, Statement of Economic Interests (the CCC Agricultural Commissioner, the managers in Public Works and the IPM Coordinator fill out this form) See Cal Gov Code 89503.

CCC Administrative Bulletin 117.6, paragraph 6, can be read to prevent employees from accepting any gift which "is intended, or could reasonably be considered as tending to influence business or applications pending before the Board of Supervisors."

Date(s) Issue Raised to: TWIC = Transportation, Water & Infrastructure Committee IPM = IPM Committee or subcommittees IO=Internal Operations Committee	Issues Raised by the Public	Steps taken by the IPM Advisory Committee and County Staff from January 2009 to the present
	<p>"PfSE members also feel a lack of goodwill and collaboration when the IPM Coordinator references statements by members that were never made. For example, in the Response Table, it states that a PfSE member stated at the February 12, 2015 [sic] TWIC meeting that 'The IPM Committee is planning to include only 70% of PfSE's priorities as the Committee's priorities for 2014.' We would be thrilled if this was the case..."</p>	<p>there has been no plan to address are columns 4 and 5 of the table."</p>
The IPM Committee needs a non-voting facilitator		
<p>2/12/14-TWIC 3/2/15-TWIC</p>	<p><i>From Parents for a Safer Environment:</i> "an impartial, non-voting facilitator would make the meetings run smoother and become more viable"</p>	<ul style="list-style-type: none"> • Staff believe that meetings are run effectively and efficiently. • The new IPM Committee chair has been very effective at running the 2014 and 2015 IPM Committee meetings and allowing the public ample opportunities to provide comment.
Parents for a Safer Environment disagrees with responses to "unresolved" issues in the Triennial Review Report		
<p>11/6/13-IPM 2/12/14-TWIC 3/5/14-IPM 3/2/15-TWIC</p>	<p><i>From Parents for a Safer Environment:</i> Disagreement with the response by staff to "unresolved issues" in the Triennial Review Report for the IPM Advisory Committee</p>	<ul style="list-style-type: none"> • The response in dispute refers to the question in Section VIII of the Triennial Review report to the Board of Supervisors from the IPM Committee: "The purpose of this section is to briefly describe any potential issues raised by advisory body members, stakeholders, or the general public that the advisory body has been unable to resolve." • The response given to this question in the report accurately reflects the response intended by the IPM Committee as agreed at their November 6, 2013 meeting. • The Triennial Review Report has been accepted by TWIC and the BOS, and the IPM Committee cannot go back and change the report. • The issue in question for the IPM Committee was whether to describe in Section VIII only issues that the Committee had been unable to resolve, or to also include a discussion of issues that PfSE felt were still unresolved. The Committee debated this and decided to also include a discussion of issues that PfSE felt were unresolved. However, it was completely clear from the discussion at the meeting that the Committee agreed that the issues described in this section (with the exception of the two that were noted as ongoing) had previously been given due consideration by the Committee, and that the Committee had addressed the issues. The Committee directed the IPM Coordinator to meet with the Committee Secretary to compile Committee and staff responses to the "unresolved" PfSE issues to include in the report and then to submit the report. • Note that in the IPM Committee's extensive planning sessions for 2014 work, the Committee did not identify any of the "unresolved" issues as priorities for 2014.

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

PESTICIDES OF CONCERN ARE SHADED (Pesticide Action Network defined "Bad Actors")

Contra Costa County Public Works

For liquid materials: Gal. used x 8.33 lbs/gal H2O x sp. Grav. x % AI

Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	Amt Used FY 13-14	Total Lbs A.I. Used 13-14	Amt Used	Total Lbs A.I.	
													(gallons)	Used 14-15	
Liquid Materials														(gallons)	Used 14-15
Adjuvant	Activator 90	36208-50014	1.040	90.000	4786.31	4248.36	3381.90								
Glyphosate, isopropylamine salt	AquaMaster	524-343	1.205	53.800		814.09	662.88	487.37	322.67	446.22	301.06	47.25	255.16	26.38	142.46
	Chemtrol	36208-50015	0.995	1.000	1.16					1.82		8.50	0.70		
Sodium salt of Imazamox	Clearcast	241-437-AA-67690	1.049	12.100								5.00	5.29	3.50	3.70
Copper ethanolamine complexes, mixed	Citrine Plus	8959-10-AA	1.206	9.000	58.78	40.69				6.78	5.00	4.52			
Indaziflam	Esplanade 200 SC	432-1516	1.050	19.050						4.17	25.00	41.66	25.14	41.89	
Adjuvant	Foam Fighter F	36208-50015	0.995	5.000	0.52	0.52									
Dimethyl silicone fluid emulsion	Foam Fighter F	36208-50003, 72-50005-AA	1.000	10.000			0.94	0.62	0.62	0.42	0.73	0.63	0.52		
Triclopyr triethylamine salt	Garlon 3A		1.135	44.400	268.66	1862.78	1547.95	2048.03	1165.94	757.71	1008.02	119.69	502.44	166.75	699.99
Triclopyr BEE	Garlon 4	62719-40	1.060	61.600	278.76	155.02	106.77	111.50	1.36	2.72	10.88	3.50	19.04		
Oxyfluorfen	Goal	707-174	0.990	19.400	3.20										
Oxyfluorfen	Goal Tender	62719-447	1.170	41.000			7.99			16.50	2.00				
Oxyfluorfen	Goal	707-243	1.120	22.000		13.34									
Imazapyr, isopropylamine salt	Habitat	241-426	1.068	28.700			5.75	17.08	34.40	13.10	5.75	0.88	2.25	2.19	5.59
based petroleum oil+nonionic emulsifiers	Helena Agri-Dex	5905-50017-AA	0.879	99.000										2.00	14.50
Aminopyralid, tri isopropanolamine salt	Milestone VM	62719-537	1.140	40.600		173.26	238.42	241.39	229.05	225.43	120.12	14.88	57.36	13.09	50.48
Adjuvant	MSO Conc w/Leci-Tech	34704-50053-AA	0.900	100.000										0.38	2.85
Adjuvant	No Foam A	11656-50086-ZA	1.050	90.000			253.87	2731.53	2292.68	2267.57	2290.71	230.85	1817.22	209.00	1645.22
Pendimethalin	Pendulum Aquacap	241-416	1.175	38.700						28.41					
Sethoxydim	Poast	7969-58	0.935	18.000		20.33									
Imazapyr, isopropylamine salt	Polaris	228-534-AA	1.057	27.700						26.83	12.02	29.32			
Triclopyr TEA	Renovate 3	62719-37-67690	1.140	44.400		324.71	309.95	171.84	137.05	183.44	145.49	87.00	366.88	35.13	148.15
Glyphosate, isopropylamine salt	Rodeo	524-343	1.205	53.800	1193.46										
isopropylamine salt	Roundup Custom	524-343-ZC & ZG	1.206	53.800										29.94	161.82
	Roundup Pro	524-475-ZA & ZB	1.170	41.000	2041.43									12.00	47.96
Glyphosate, isopropylamine salt	Roundup Pro Conc.	524-529	1.199	50.200		588.28	1153.95	937.84	1006.75	1092.55	1496.00	273.16	1369.00	240.75	1206.57
Glyphosate, isopropylamine salt	Roundup Tough Weed Formula	239-2636	1.070	18.000							98.07				
Maleic hydrazide	Royal Slo Gro	400-94-AA	1.135	21.700							41.03				
Imazapyr, isopropylamine salt	Stalker	241-398	1.050	27.600	13.58	20.98	9.05								
Adjuvant	Silicone Super Wetter	17545-50029-AA	0.994	100.000							0.19	1.57			
Adjuvant	Silwet L-77	36208-50025	1.007	100.000	14.26	8.39					15.77				
Oryzalin	Surflan A.S.	62719-113	1.188	40.400	56.97										
Oryzalin	Surflan A.S.	70506-44	1.236	40.400		112.33	87.36	47.84	33.28	2.08				12.00	49.92
Adjuvant/Surfactant	Surphtac	68891-50001-AA	1.118	53.400	197.06										
Adjuvant/Surfactant	Surphtac	11656-50093	1.180	53.400		112.85	190.95	181.77	129.28	168.65	173.90	29.00	152.22	20.81	109.23
Clopyralid	Transline	62719-259	1.161	40.900	89.00	48.81	6.17								
Adjuvant	Unfoamer	34704-50062-AA	1.000	12.500										0.5	0.52
	Vanquish	55947-46	1.250	56.800	1360.29										
Dicamba, diglycolamine salt	Vanquish	228-397	1.250	56.800		906.37	707.53	97.59		40.69	333.45	0.75	4.44	24.56	145.26
	Weedar 64	71368-1-264	1.160	38.900	1979.96	18.79									

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Public Works (continued)

For dry materials: Amt. Used x %AI

	Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used FY 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	Amt Used FY 13-14	Total Lbs A.I. Used 13-14	Amt Used FY 14-15	Total Lbs A.I. Used 14-15
<i>Dry Materials</i>										(pounds)		(pounds)	(pounds)		
	Diuron 80DF	66222-51	N/A	80.000		960.00	640.00								
	Direx 80DF	352-508-1812	N/A	80.000	2300.00										
	Endurance	55947-43	N/A	65.000	983.45										
Prodiamine	Endurance	228-398	N/A	65.000		1194.05	789.75	855.40	689.00						
Isoxaben	Gallery 75DF	62719-145	N/A	75.000	40.50	51.75	59.25	54.75	2.63	3.00	15.75	15.00	11.25	48.50	36.38
	Gallery SC	62719-658 AA	N/A	45.500										13.00	5.92
Sulfometuron methyl	Oust	352-401	N/A	75.000	20.53	152.25	108.12	76.55							
	Oust XP	352-601	N/A	75.000				75.85	96.61	14.25	12.74	9.56			
	Predict	55947-78	N/A	78.600	389.07										
Prodiamine	ProClipse 65 WDG	228-434	N/A	65.000				201.50	361.40	448.50	48.00	31.20	383.00	248.95	
	Ronstar 50WSP	264-538	N/A	50.000	60.00										
	Simtrol 90DF	35915-12-60063	N/A	90.000	387.00										
Tebuthiuron	Spike 80DF	62719-107	N/A	80.000	48.00	96.00	96.00	105.60							
	Telar DF	352-522-ZA	N/A	75.000										1.00	0.75
	Telar XP	352-654-AA	N/A	75.000				4.88	5.16	6.00	9.01	6.76	16.00	12.00	
Chlorsulfuron	Telar	352-404	N/A	75.000	19.031	13.313	10.88	6.38							
TOTAL:					16590.97	11889.25	10367.44	8165.12	6438.92	5713.48	6565.25		4688.34		4780.08
"Bad Actors" w/May 2013 changes					5764.53	3493.47	2883.09	2545.49	1582.41	1117.04	1340.19		1032.82		1020.03

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Public Works, Special Districts

Name of Product Applied	EPA or Calif. Reg #	Specific Gravity	% A.I.	Total Lbs A.I. Used FY 07-08 & before	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13		Amt Used FY 13-14 (gallons)	Total Lbs A.I. Used 13-14	Amt Used FY 14-15 (gallons)	Total Lbs A.I. Used 14-15
Liquid Materials														
Gal. used x 8.33 lbs/gal H2O x sp. Grav. x %AI														
Glyphosate	Roundup ProMax	524-579	1.36	48.7	no data	0.00	0.00	26.45						
Dry Materials														
Amt. used x % AI														
no data														
											(pounds)		(pounds)	
Bromethelin	Talpirid Mole Bait	12455-101	N/A	0.025	no data			0.0000008						
Chlorphacinone	Chlorphacinone	11071-CA-001	N/A	0.005	no data				0.00220					
Chlorphacinone	Chlorphacinone Treated Grain Rodent Bait	10965-50004ZA	N/A	0.005	no data	0.00	0.00	0.000190	0.0014375					
Diphacinone	Diphacinone Treated Grain Rodent Bait	10965-50003	N/A	0.010	no data			0.0001500						
Diphacinone	Diphacinone Treated Grain Rodent Bait	10965-50001-ZA	N/A	0.005	no data				0.00375	45.00	0.00225	29.00	0.00145	
Diphacinone	Eaton's Answer	56-57	N/A	0.005	no data	0.002325	0.00210	0.0009750	0.00095	39.00	0.00195	16.00	0.00080	
Diphacinone	Eaton's Bait Blocks	56-42	N/A	0.005	no data	0.0001	0.000250	0.00020	0.00060	4.00	0.00020	8.50	0.00043	
Aluminum phosphide	Fumitoxin	72959-1-5857	N/A	55.000	no data	0.00	0.00	0.81						
Strychnine Alkaloid	Gopher Getter AG Bait	36029-7	N/A	0.500	no data	0.00	0.00	0.0020						
Diphacinone	Gopher Getter Type 2 AG Bait	36029-23	N/A	0.005	no data	0.00	0.00	0.0002						
Diphacinone	Gopher Getter Type 2 AG Bait	36029-24	N/A	0.005	no data			0.0004025	0.00009					
Diphacinone	P.C.Q. Pelleted Rodent Bait	12455-50003-AA	N/A	0.010	no data			0.0005000	0.00365					
Aluminum phosphide	Phostoxin	72959-4	N/A		no data	10.79	9.20							
Oxadiazon	Ronstar G	432-886	N/A	2.000	no data			6.00						
Chlorphacinone	Rozol	7173-242	N/A	0.005	no data				0.00010					
Aluminum phosphide	Weevil-cide	70506-13	N/A	60.000	no data	0.00	0.66	11.64	6.7320000	7.140	2.65	1.59000		
Zinc phosphide	ZP Rodent Bait AG	12455-17	N/A	2.000	no data	0.000	0.000	0.02						
TOTAL						10.79	9.86	44.92	6.735666	7.151343		1.594400		0.00268
"Bad Actors" w/May 2013 changes						10.79	9.86	12.47	6.73	7.14		1.59		0.04 oz
														0.00

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Department of Agriculture

Gal. used x 8.33 lbs/gal H2O x sp. Grav. x %AI

Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used FY 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	Amt Used	Total Lbs A.I.	Amt Used	Total Lbs A.I.	
											FY 13-14	Used 13-14	FY 14-15	Used 14-15	
Liquid Materials												(gallons)	(gallons)	(gallons)	(gallons)
glyphosate	Aquamaster	524-343	1.205	53.80						5.29	3.12	16.85			
glyphosate	Aqua Neat	228-365-AA	1.224	53.80											
glyphosate	Aqua Neat	228-365-4581	1.201	53.80					26.91						
esfenvalerate	Asana XL	352-515	0.930	8.40		0.09	0.01								
Dicamba & 2,4 D	Banvel	55947-1	1.211	48.20	72.51										
	2,4-D	34704-5	1.163	46.50	24.78										
	Bivert	2935-50157-AA	0.790	100.00	6.12										
	Carbaryl ("7")	54705-4	1.100	41.20	30.01										
dicamba, diglycolamine salt	Clarity	7969-137	1.250	56.80		416.43	170.92	280.46	391.70	275.43	225.45	25.20	149.04	14.76	87.30
Triclopyr, butoxyethyl ester	Garlon 4	464-554	1.082	61.60	13.88										
imazapyr isopropylamine salt	Habitat	241-426	1.068	28.70	0.00	1.33	1.20	0.72	1.35	0.26	0.92	0.09	0.23		
surfactant	Hasten	2935-50160	0.900	100.00				1.20	0.15						
Adjuvant	Herbicide Activator (First Choice)	11656-50024-ZC	0.900	100.00		0.94									
Drift retardant-oils	In Place	2935-50169	0.880	100.00							59.45	6.25	45.82	0.41	2.98
Aminopyralid, trisopropanolammonium salt	Milestone	62719-519	1.140	40.60		33.74	10.60	38.06	43.42	17.70	21.52	6.27	24.18	3.13	12.07
Aminopyralid, trisopropanolammonium salt & triclopyr, triethylamine salt	Milestone VM Plus	62719-572	1.140	18.44			7.88	8.91	0.09	6.57					
surfactant	Pro-Tron	71058-50008-AA	0.984	95.00				195.84	51.47	137.75	21.30	165.86	4.93	38.39	
Adjuvant	R-11	2935-50142-AA	1.020	90.00	389.99	180.09	71.80	170.14	1.76						
Clopyralid, triethylamine salt & triclopyr, triethylamine salt	Redeem	62719-337	1.140	45.10			0.30								
Glyphosate, isopropylamine salt	Rodeo	524-343	1.205	53.80	13.50										
Glyphosate, isopropylamine salt	Roundup Pro	524-475	1.170	41.00	276.35	104.04	195.97	182.66							
Glyphosate, isopropylamine salt	Roundup Pro Conc.	524-529	1.199	50.20				152.67	149.51	63.88	17.12	85.84	1.69	8.47	
imazapyr isopropylamine salt	Stalker	241-296	1.060	27.60			0.30	0.56							
imazapyr isopropylamine salt	Stalker	241-398	1.060	27.60					1.61	0.71			0.0004	0.001	
Picloram potassium salt	Tordon 22K	464-323	1.140	24.40	3.55										
Clopyralid, monoethanolamine salt	Transline	62719-259	1.161	40.90	277.99		0.03	0.01							
Adjuvant	Tri-Fol Buffer	2935-50152-AA	1.120	34.00			0.25								
dicamba, diglycolamine salt	Vanquish	55947-46	1.250	56.80	299.20		1.83	0.24							
dicamba, diglycolamine salt	Vanquish	100-884	1.250	56.80				0.35							
Triclopyr, butoxyethyl ester	Remedy	62719-552	1.080	61.60		16.63									

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Department of Agriculture (continued)

	Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used FY 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	FY 13-14	Total Lbs A.I. Used 13-14	Amt Used FY 14-15	Total Lbs A.I. Used 14-15	
	Dry Materials				Amt. Used x %AI									(pounds)		(pounds)
Diphacinone	Diphacinone .005%	10965-50001-ZA	N/A	0.005	0.04	0.03	0.04	0.03	0.00	0.23	0.09	1335.00	0.07	260	0.013	
Diphacinone	Diphacinone .01%	10965-50003-ZA	N/A	0.01	1.57	2.58	2.34	2.78	3.37	3.10	2.75	13055.50	1.31	27109	2.71	
Sodium nitrate, charcoal	Gas Cartridge	56228-2	N/A	81.00		2.58		1.94	2.07	4.56	5.47					
Imidacloprid	Merit 75WSP	3125-439	N/A	75.00	10.19											
Chlorsulfuron	Telar	352-522	N/A	75.00		0.14	0.29	0.18	0.89	0.93	5.84	10.79	8.09	1.05	0.79	
Picloram potassium salt	Tordon 10K	464-320	N/A	11.60	0.99				0.36							
Aluminum phosphide	Weevil-cide	70506-13	N/A	60.00			0.59			0.95		0.50	0.30			
	TOTAL:				1420.66	757.58	465.09	687.35	794.73	539.44	529.11		497.57		152.72	
	"Bad Actors" w/May 2013 changes				131.84	0.14	0.88	0.48	1.26	1.94	5.84		8.39		0.79	

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Public Works - Grounds

Gal. used x 8.33 lbs/gal H2O x sp. Grav. x %A															
Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used FY 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	Amt Used FY 13-14 (gallons)	Total Lbs A.I. Used 13-14	Amt Used FY 14-15 (gallons)	Total Lbs A.I. Used 14-15	
Liquid Materials															
Chlorantranilprole	Acelepryn	352-731	1.094	18.40				0.24							
Dikegulac sodium	Atrimmec	2217-776	1.095	18.50				2.21	0.32						
Proflaminate	Barricade	100-1139					35.01								
Dicamba, MCPA, Triclopyr	Cool Power	228-317					9.27								
Adjuvant	Crop Oil (Monterey Herbicide Helper)	54705-50001-AA	0.900	100.00							0.08	0.60			
	Dursban 2E	464-586	1.000	24.10											
Myclobutanil	Eagle	62719-463					0.06								
	Embank	7182-7-AA	1.110	28.00											
Bifenazate	Floramite	400-508					0.03								
Ethephon	Florel	62719-145-AA	1.016	3.90											
Ethephon	Florel	264-543-54705					0.65								
	Fruit Stop	5481-66-65783					0.43								
Fluazifop-P-butyl	Fusilade II	100-1084	0.980	24.50			0.19	0.50	0.50		0.05	0.10			
	Goal	707-174	0.990	19.40	19.34										
	Grass Getter (Poast)	7969-58-ZA-54705	0.935	18.00											
Hexythiazox	Hexygon	10163-208					0.11								
Petroleum distillates	Lesco Horticultural Oil	10404-66					2.13								
	Knox Out 2 FM	4581-335-449	1.036	23.00											
	Lindane	7001-279-AA	0.976	87.60											
Adjuvant	Magnify	17545-50018	1.220	51.50						0.47			0.01	0.05	
	Maintain A	400-396-AA	1.000	0.30											
	Malathion	655-598	1.032	0.50											
Adjuvant	No Foam A (Monterey)	54705-50004-AA	1.050	90.00							0.15	1.18	0.22	1.73	
	NuFarm Polaris	228-534-AA	1.057	27.70									0.04	0.10	
	Ornamec	2217-728-AA	0.880	6.75											
Glyphosate isopropylamine salt	Razor	228-366					91.73								
Glyphosate, diquat dibromide	Razorburn	228-446	1.146	43.10				4.11							
	Roundup Pro	524-445-ZB	1.020	41.00	156.00										
Glyphosate isopropylamine salt	Roundup Pro	524-475	1.170	41.00		23.98									
Glyphosate isopropylamine salt	Roundup Pro Conc.	524-529	1.199	50.20		33.89	50.92	41.56	94.11	363.50	351.72	36.41	182.55		
Glyphosate potassium salt	Roundup Promax	524-579	1.356	48.70				1.87				52.72	290.01	56.51	
Nonanoic acid	Scythe	62719-529						0.66							
	Sevin SL	464-586	1.000	24.10											
Bifenthrin	Talstar	279-3206					0.02								
	Triclopyr 4EC	81927-11-AA	1.100	61.60					5.64	1.41			0.25	1.41	
Dicamba, MCPA, MCPP	Tri Power	228-262					3.79								
Triclopyr BEE	Turflon	62719-258	1.060	61.60	1.96										
	Turflon Ester	17545-8-AA	1.08	60.45									0.003	0.02	

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

Contra Costa County Public Works - Grounds (continued)

	Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total Lbs A.I. Used FY 00-01	Total Lbs A.I. Used FY 07-08	Total Lbs A.I. Used 08-09	Total Lbs A.I. Used 09-10	Total Lbs A.I. Used 10-11	Total Lbs A.I. Used 11-12	Total Lbs A.I. Used 12-13	Amt Used FY 13-14 (pounds)	Total Lbs A.I. Used 13-14	Amt Used FY 14-15 (pounds)	Total Lbs A.I. Used 14-15
	Dry Materials		Amt. Used x %AI												
Isoxaben	Gallery 75 DF	62719-145-AA	N/A	75.00	97.08		44.42		14.25	4.88	8.25	3.00	2.25	18.38	13.79
Dithiopyr	Dithiopyr 40 WSB	73220-13	N/A	0.125 lbs ai/5 oz						1.63	2.72			30 oz (6 bags)	0.75
Flumioxazin	Payload	59639-120-ZA	N/A	51.00			0.30					9.31	4.75	3.06	1.56
	Lindane	20954-107-AA	N/A	99.50											
	Orthene	59639-88	N/A	75.00	0.52										
Acephate	Orthene	59639-26					0.13								
Sulfometuron methyl	Oust	352-401	N/A	75.00	3.85		0.17								
Oxadiazon	Ronstar WP	264-538	N/A	50.00	648.63		0.00								
Halosulfuron methyl	Sedgehammer	81880-1-10163	N/A	75.00											
Halosulfuron methyl	Sedgehammer	81880-24-10163	N/A	5.00								2.00	0.10	0.03	0.0015
Flumioxazin	SureGuard	59639-120	N/A	51.00					1.27	12.20	21.16	10.79	15.69	8.00	
Chlorsulfuron	Telar	352-522					0.06								
				TOTAL	927.37	57.87	240.06	45.89	112.97	377.74	376.77		492.33		338.26

"Bad Actors" w/May 2013 changes

					649.14	0.00	5.00	0.00	0.50	0.50	0.00		0.10		0.00
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NOTE: The totals for 07-08 only account for Grounds Div. usage and do not include Tru-Green usage.

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

CCC Public Works - Facilities

	Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total oz. A.I. Used FY 07-08	Total oz. A.I. by wt. Used 08-09	Tot. oz. A.I. by wt. Used 09-10	Tot. oz. A.I. by wt. Used 10-11	Total OZ. A.I. Used 11-12	Total OZ. A.I. Used 12-13		Amt Used FY 13-14	Total OZ. A.I. Used 13-14	Amt Used FY 14-15	Total OZ. A.I. Used 14-15
Liquid Materials												(fl. oz.)	Oz. by Wt.	(fl. oz.)	Oz. by Wt.
									Oz. by Wt.	Oz. by Wt.					
Orthoboric acid	Drax Liquid Bait	9444-206			0.00	0.03	0.00								
Sodium tetraborate Decahydrate (Borax)	Advance Ant Gel	499-492	1.23	5.40				0.01	0.002						
Indoxacarb	Advion Ant Bait Arena	352-664	1.09	0.10	0.00	0.00	0.00	0.00	0.077	0.0063	33 ea (Net wt of Arena is 0.07 oz)	0.00262	164 ea (Net wt of Arena is 0.07 oz)	0.013	
Sodium Tetraborate Decahydrate	Advance Liquid Ant Bait	499-491	1.24	1.30	0.00	0.00	4.12	37.79	62.047	72.323		784.00	13.14360		
Indoxacarb	Advion Ant Gel	352-746	1.24	0.05	0.00	0.00	0.00	0.03	0.022	0.0346		85.42	0.05508	115.64	0.075
Indoxacarb	Advion Cockroach Bait Arena	352-668	1.09	0.50				0.00	0.005	0.0014	8 ea (Net wt of Arena is 0.07 oz)	0.00280	10 ea (Net wt of Arena is 0.07 oz)	0.00397	
Indoxacarb	Advion Cockroach Gel Bait	352-652	1.0442	0.60				0.01	0.000521	0.07871		31.08	0.20251	7.13	0.046
Chlorantraniliprole	Altriset	100-1503	1.094	18.4										2.00	0.419
Cedar oil	Best Yet Insect Control Solution	Exempt 25b material	No data	10.00										128.00	12.800
White pepper, mineral oil	DeTour for Rodents	Exempt	0.864	3.00										166.00	4.475
Hydroprene	Gentrol IGR Concentrate	2724-351			0.08	0.00	0.00								
Hydroprene	Gentrol Point Source	2724-469		90.60				0.00	0.007	0.065					
Rosemary Oil	EcoExempt 1C	Exempt			1.66	8.32	112.49								
2-phenethyl propionate	EcoPco Acu	67425-14			0.00	0.00	0.01								
Sodium tetraborate Decahydrate (Borax)	Intice Thiquid Ant Bait	73079-7	1.33	1.00								3128.00	43.26650	3554.00	49.159
Fipronil	Maxforce Ant Bait Gel	432-1264	1.27	0.00	0.00	0.00	0.000013								
Fipronil	Maxforce FC Select Roach Gel	432-1259	1.1414	0.01				0.000006							
Imidacloprid	Maxforce Quantum Ant Bait	432-1506	1.43	0.03										27.90	0.012
Hydramethylnon	Maxforce Roach Bait Gel	432-1254		2.15	0.13	0.03	0.00								
sodium lauryl sulfate	Oh Yeah	Exempt	1	0.70				9.47	18.731	9.57444		1072.00	7.80416	2222	16.176
Note: product has 2 a.i. s	Precor 2000	274-483		0.5% permethrin					0.0208						
				0.09% methoprene					0.0000						
Note: product has 5 a.i. s	Precor 2000 Plus	2724-490		0.085% methoprene										128	0.109
				0.35% permethrin											0.448
				0.3% pethnothrin											0.384
				2% n-octyl bicycloheptene dicarbonimide											2.56
				1.4% poperonyl butoxide											1.792
Foaming agent	Profoam Platinum (foaming agent)	1021148-50001-AA	No data	60.00										2	1.200
coyote & fox urine	Shake Away: Fox/Coyote	80917-5	1	5.00						20.488		44.50	2.31400		
Sodium Tetraborate Decahydrate (Borax)	Terro PCO Bait stations	149-8-64405	1	5.40				0.12	1.166	0.661				135-0.36 oz stations	2.6244

CONTRA COSTA COUNTY OPERATIONS - PESTICIDE USE SUMMARY COMPARISON FY 00-01 to FY 14-15, Revised 10-28-15

CCC Public Works - Facilities, cont.

	Name of Product Applied	EPA or Calif. Registration #	Specific Gravity	% A. I.	Total oz. A.I. Used FY 07-08	Total oz. A.I. by wt. Used 08-09	Tot. oz. A.I. by wt. Used 09-10	Tot. oz. A.I. by wt. Used 10-11	Total OZ. A.I. Used 11-12	Tot. oz. A.I. by wt. Used 12-13		Amt Used FY 13-14	Tot. oz. A.I. by wt. Used 13-14	Amt Used FY 14-15	Tot. oz. A.I. by wt. Used 14-15
	Dry Materials								OZ. by Wt.			OZ. by Wt.		OZ. by Wt.	
Note: product has 2 a.i. s	Alpine Dust	499-527		0.25% dinotefuran 95% DE				0.00	0.000						
								0.14	0.010						
Abamectin	Avert Dry Flowable Bait	499-294			0.00	0.00	0.00								
Orthoboric acid	Borid	9444-129			0.00	6.93	0.99								
Amorphous silicon dioxide	Concern Diatomaceous Earth	73729-1-50932		85.00	0.00	0.00	0.02	2.09	1.700	0.680					
Bromodialone	Contra Blox	12455-79			0.09	0.06	0.02								
non-toxic rodent monitoring food bait	Detex Blox	Eco-019												236	N/A
Diatomaceous earth	Diatomaceous Earth	499-509		100										0.23	0.23
Note: product has 3 a.i. s	Eco PCO WP-X	None		3% phenethyl propionate					0.060	0.0792					
				5% Thyme oil					0.100	0.132					
				0.05% pyrethrins					0.001	0.00132					
Note: product has 2 a.i. s	Eco PCO DX	67425-16-655		1% 2-phenethyl propionate 0.4% pyrethrins						0.00017					
										0.000068					
Balsam fir oil	Fresh Cab Rodent Repellent (granules)	82016-1		2.00										8-2.5 oz pouches	0.4
Oil of black pepper	Havahart Critter Ridder	50932-10		0.48								804.00	3.8592	624	2.9952
Orthoboric acid	Niban FG/Mother Earth Granules	64405-2 499-515		5.00	190.69	107.53	62.64	35.98	56.875	156.300		375.00	18.75	3144.5	157.225
Fipronil	Maxforce Ant Bait Stations	432-1256		0.05	0.00	0.00	0.00						0.00008		
Fipronil	Maxforce FC Prof. Insect Cntrl Roach Bait Station	432-1257		0.05									0.00021		
Fipronil	Maxforce Ant Bait Stations	64248-10		0.01				0.000005		0.000055					
Fipronil	Maxforce Roach Bait Stations	64248-11		0.05				0.00028	0.00016	0.000265					
Hydramethylnon	Maxforce Roach Bait Stations	432-1251			0.19	0.03	0.00								
Boric Acid	Perma Dust	499-384			142.71	242.11	94.08								
			OZ of A.I		335.55	365.04	274.38	85.65	140.824	260.426			89.401		253.146
			LBs of A.I.		20.97	22.81	17.15	5.35	8.80	16.28			5.59		15.82
	OZ of BA				0.41	0.12	0.03	0.00	0.02	0.0014			0.0000		0.832



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

7.

Meeting Date: 12/07/2015

Subject: ACCEPT report on I-680/Treat Boulevard Bike/Pedestrian Plan and take ACTION as appropriate.

Submitted For: TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE,

Department: Conservation & Development

Referral No.: 17

Referral Name: Review transportation plans and services for specific populations, including but not limited to County Low Income Transportation Action Plan, Coordinated Human Services Transportation Plan for the Bay Area, Priorities for Senior Mobility...

Presenter: Jamar Stamps, DCD

Contact: Jamar Stamps
(925)674-7832

Referral History:

In 2013, the County was awarded a grant in the amount of \$75,000 for Transportation for Livable Communities (“TLC”) from the Contra Costa Transportation Authority (“CCTA”) to develop the I-680/Treat Boulevard Bike/Pedestrian Plan (“Plan”). The Plan identifies improvements to serve bicyclists and pedestrians using the Treat Boulevard/I-680 over-crossing near the Contra Costa Centre/Pleasant Hill BART station area.

The I-680/Treat Boulevard over-crossing is one of the main arteries into the Contra Costa Centre/Pleasant Hill BART station area from areas of Walnut Creek west of the freeway. The study area consists of the segment of Treat Boulevard from the Iron Horse Trail overcrossing, extending west to North Main Street in the City of Walnut Creek (Exhibit A).

Referral Update:

The Department of Conservation and Development (“DCD”) contracted with Alta Planning + Design (“consultant”) to develop the Plan. DCD staff formed a technical advisory committee (“TAC”) to review work on specific project tasks. The TAC consists of representatives from County Public Works Department, County Supervisor District IV, City of Walnut Creek, Caltrans, Contra Costa Center Municipal Advisory Council and CCTA.

Stakeholders invited to participate in the project include various agencies and public advocacy groups, some of which are: City of Pleasant Hill, BART, East Bay Regional Park District, Walnut Creek School District, Walden Improvement Association, Bike East Bay, Bike Concord, etc.

With input from site evaluations, traffic analysis and direction from TAC members, the consultant initially developed three preliminary improvement plan options. A public workshop held in December 2014 led to a fourth “preferred” option, which combined elements from the initial three concepts. The fourth preferred option was included in the Draft Plan which was published in September 2015 for public comment (Exhibit B).

County staff received numerous comments from the public, bicycle advocacy groups and other agencies within the three week comment period (September 16, 2015 through October 9, 2015). A summary of those comments is provided in Exhibit C. DCD staff met with Walnut Creek staff to discuss how best to proceed. It was determined that a thorough response would require revisions to the Plan that unfortunately would not be able to be covered by the existing scope of work. Additionally, the project’s funding has been exhausted.

The Consultant provided DCD staff with an addendum to the scope of work and budget (Exhibit D) for the additional work required to complete the Plan, which was vetted by DCD and Walnut Creek staff. The total cost for additional work would be \$20,705. Potential funding sources for the additional work include: Measure J Subregional Transportation Needs funds, CCTA TLC, OneBayArea (“OBAG”) planning grant, Caltrans Sustainable Transportation Planning grant.

Resumption of the project would depend on when funding is secured. If Measure J funds are available, Plan development would proceed in January 2016. However, relying on grant funds would provide less certainty due to the competitive nature of grant funds and varying schedules for award disbursements.

Recommendation(s)/Next Step(s):

ACCEPT report on I-680/Treat Boulevard Bike/Pedestrian Plan and take ACTION as appropriate.

Fiscal Impact (if any):

No fiscal impact.

Attachments

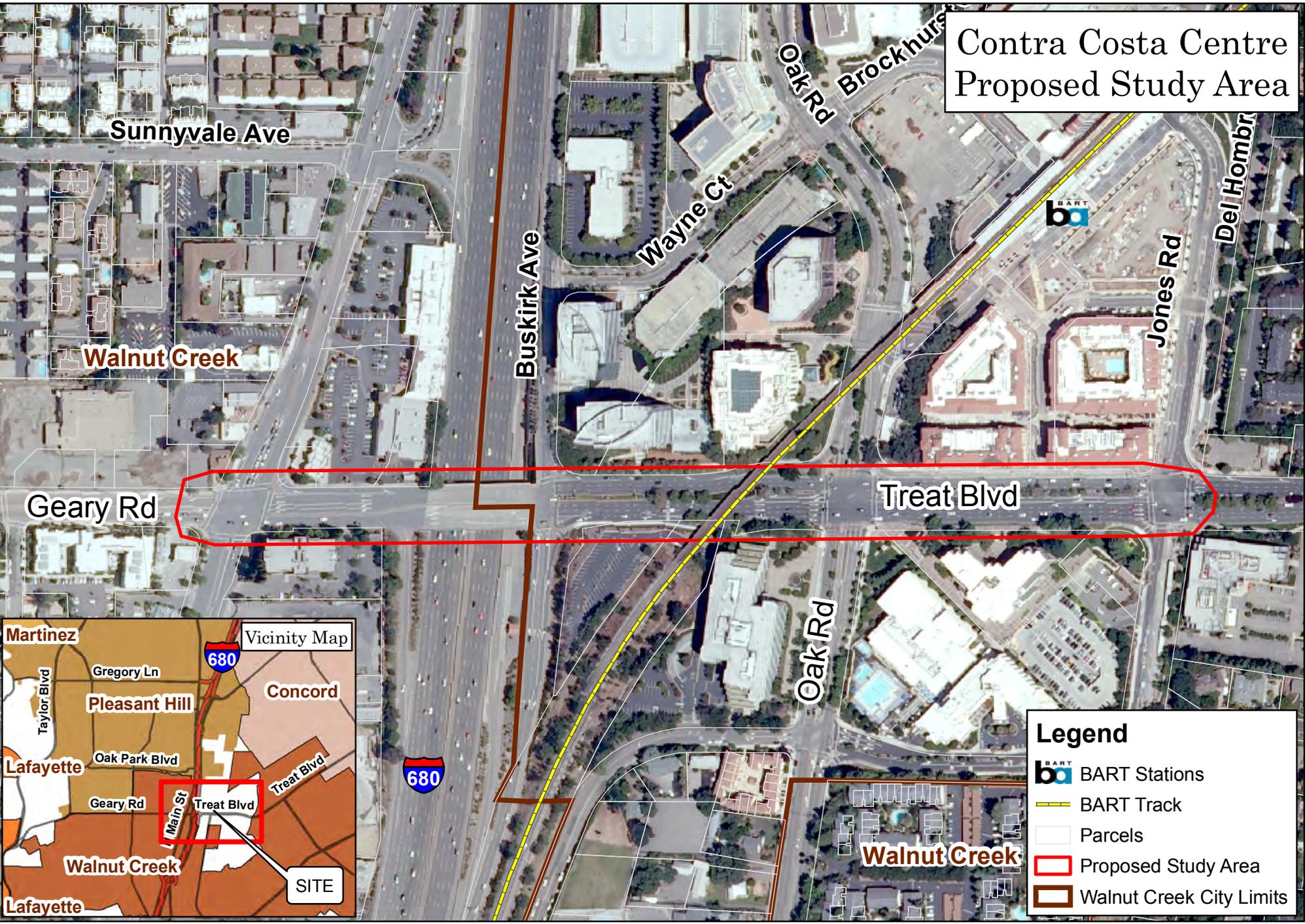
Exhibit A – Study Area Map

Exhibit B – Draft Plan

Exhibit C – Summary of Comments

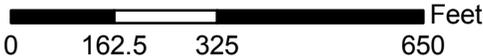
Exhibit D – Addendum to Scope of Work/Budget

Contra Costa Centre Proposed Study Area



Legend

- BART Stations
- BART Track
- Parcels
- Proposed Study Area
- Walnut Creek City Limits



Map created 11/3/2011
 by Contra Costa County Department Conservation and Development
 Community Development Division-GIS Group
 651 Pine Street, 4th Floor North Wing, Martinez, CA 94553-0095
 37-59-48.455N 122-06-35.384W
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Contra Costa County Department of Conservation and Development

Contra Costa Center I-680/Treat Boulevard Bicycle and Pedestrian Plan

DRAFT - SEPTEMBER 2015



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Separately available: full Traffic Analysis Report with modeling output and traffic count data tables (DKS Associates)

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Summary

The Contra Costa Centre Transit Village is a Transit Oriented Development (TOD) in unincorporated Walnut Creek, clustered around the Pleasant Hill BART station. It is characterized by mixed commercial, office and residential land uses. Pedestrians and cyclists access the area principally via the Iron Horse Trail or a narrow (5') sidewalk along the north side of the I-680 overcrossing bridge.

Treat Boulevard creates challenges for the users of transit as the wide roadways (up to nine lanes) and intersections become barriers for pedestrians to cross. Without bicycle infrastructure, the first/last mile for transit users becomes even more constrained.

With the goal of addressing these deficiencies and providing more livable communities, Alta Planning + Design developed four draft concepts (1A, 1B, 2 and 3). After stakeholder discussions and feasibility analysis, a recommended combination concept (4) was identified based on several different elements from the draft concepts. Concept 4 emphasizes a high level of comfort for bicyclists and pedestrians on the segment they most often use, Main Street to Oak Road. The main features of Concept 4 are:

- the provision of a two-way shared use path on the north side of Treat Boulevard between Main Street and Oak Road, including the I-680 overcrossing;
- a new sidewalk on the south side between Main Street and Buskirk Avenue to enhance pedestrian connectivity; and
- changes to the north side of the Oak Road and Buskirk Avenue intersections to improve pedestrian and bicycle crossings.

A short-term Phase 1 project would focus on improvements between Main Street and Buskirk Avenue. The estimated cost of Phase 1 is \$1,426,000. As this concept does not remove any traffic lanes or restrict any turn movements, there are no motorist level of service impacts.

In the medium-term, Phase 2 would include two-stage bicycle turn facilities at Main Street and removal of two channelized right turns at Oak Road in favor of shared use paths. The estimated cost of Phase 2 is \$724,000. Traffic analysis using future year (2040) volumes indicates that queue lengths for some of the Oak Road movements may double from roughly 10 to 20 car lengths while the overall intersection LOS remains "E".

In the long term, Caltrans and the City of Walnut Creek are considering the redesign of several interchanges along I-680 with potentially significant changes to the pedestrian and bicycle networks.

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1. Introduction

The Contra Costa Centre Transit Village is a Transit Oriented Development (TOD) in unincorporated Walnut Creek, characterized by mixed commercial and office land uses. Bicycle parking at the BART station is plentiful and heavily utilized. Despite these trip generators, the I-680 overcrossing has a narrow (5') sidewalk on the north side only, and no bicycle facilities. Other than the regional Iron Horse Trail, there are no bicycle facilities along or across the corridor.

This study intends to assess active transportation improvement options, recommend a phased approach to implementation, and provide concept plans and cost estimates for funding programming.

Figure 1-1 shows a vicinity map of the study corridor.

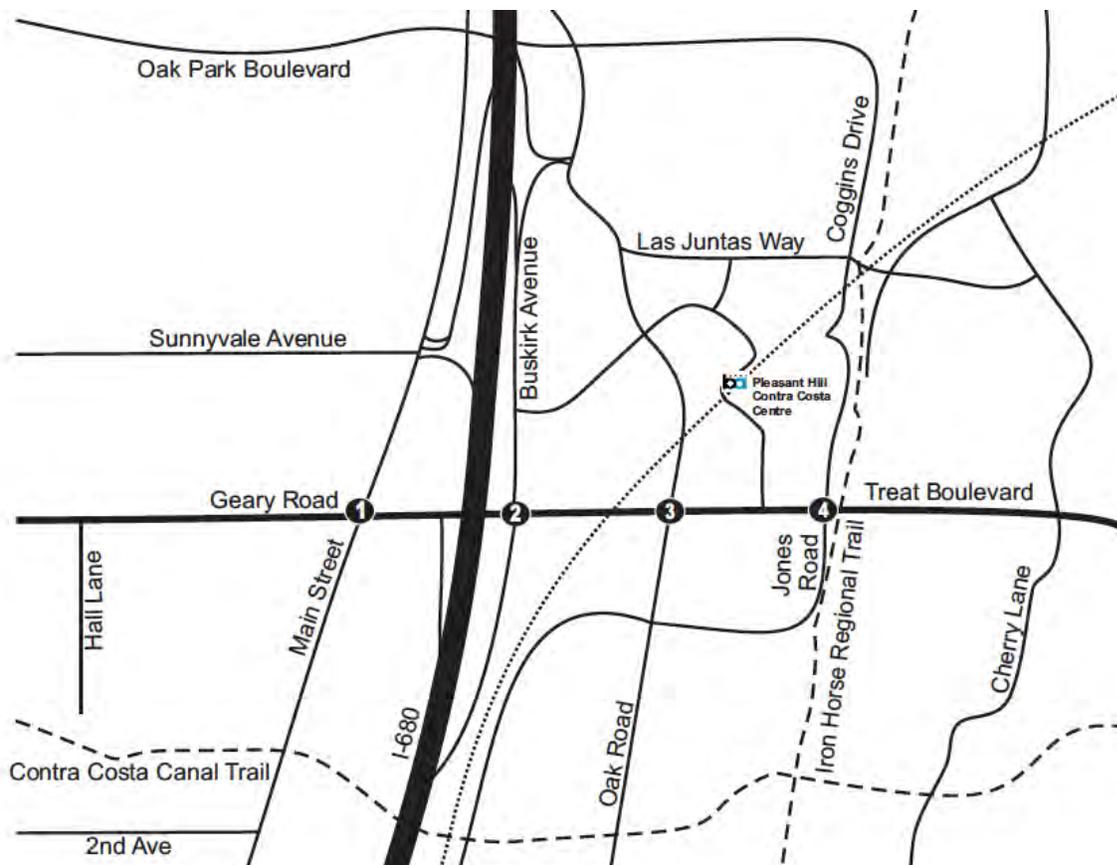


Figure 1-1: Project Locality

This project includes the following intersections:

1. Treat Boulevard/Geary Road and N. Main Street
2. Treat Boulevard and Buskirk Avenue/I-680 northbound ramps
3. Treat Boulevard and Oak Road
4. Treat Boulevard and Jones Road/Iron Horse Trail

2. Plan Development Process

Plan Initiation

The Plan was funded with a \$75,000 grant from Contra Costa Measure J (2004) Transportation for Livable Communities (TLC) program, administered through the Contra Costa Transportation Authority (CCTA).

In April 2014, the consultant team met with Contra Costa County at a “kick-off” meeting to review the overall scope, data needs, schedule, vision and goals of the Plan. The Team collected necessary geographic, design and vehicle, bicycle and pedestrian data for analysis.

Outreach

A Technical Advisory Committee (TAC) including staff from Contra Costa County, Walnut Creek, and Caltrans was convened three times (see Appendix A for a list of TAC members). In addition to the TAC, meetings were held with the following stakeholders:

- 7/27/14 Lamorinda Development
- 12/12/14 Contra Costa Centre property management
- 2/20/15 Bike East Bay

Design Alternatives

The summer and fall of 2014 were dedicated to the analysis of existing plans, GIS data, field research, traffic analysis and the development of three design concepts. The design concepts, described in further detail below, were evaluated and reviewed by the TAC and the Walnut Creek Transportation Commission.

Recommended Concept

In May 2015, the TAC met to review the recommended concept. Principal topics included highway network planning, freeway access constraints, design details, and traffic modeling.

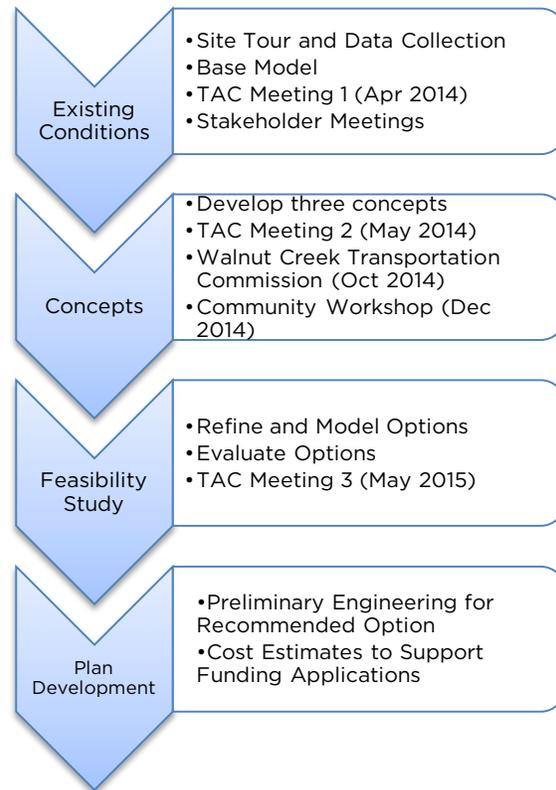


Figure 2-1: Plan Process

3. Planning Context

Previous plans in the area identify proposed pedestrian and bicycle improvements, policies, and priorities for Treat Boulevard and the nearby area. A brief description of each related plan is listed below.

3.1. City of Walnut Creek Bicycle Master Plan (2011)

According to this plan, the City of Walnut Creek allows bicyclists to use sidewalks along heavily travelled arterials, including Treat Boulevard. Various segments of Treat Boulevard within the city limits are designated as Class III bicycle routes, although sharing a lane with high volumes of traffic on a 35 mph roadway is not a condition that will suit most people.

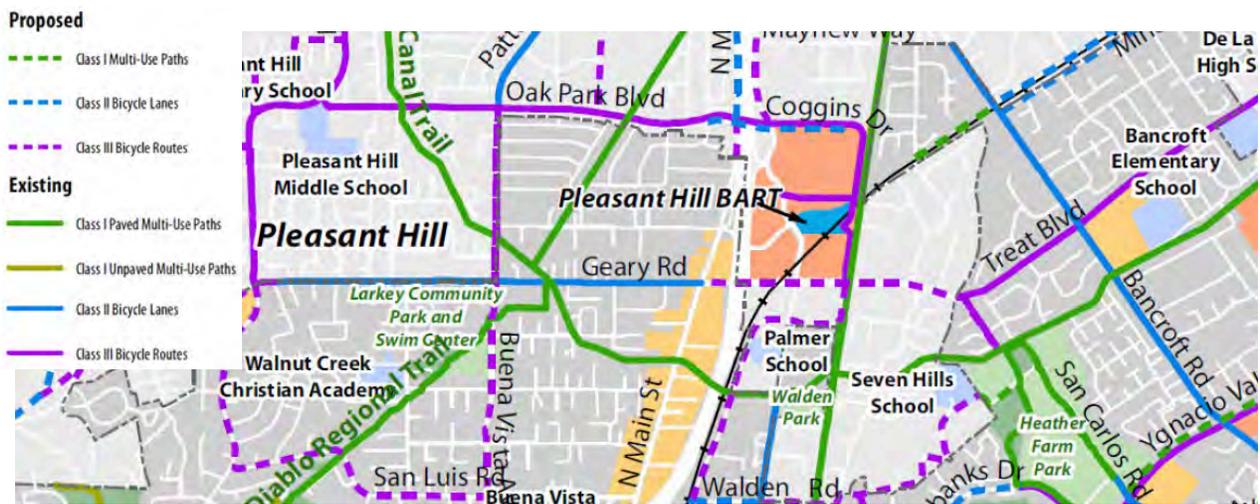


Figure 3-1: Extract of Walnut Creek Bicycle Master Plan showing Treat Boulevard as a proposed Class III

3.2. Contra Costa Bicycle and Pedestrian Plan (2009)

The Contra Costa Bicycle and Pedestrian Plan names “Routes to transit” as one of three types of pedestrian priority locations. The Pleasant Hill BART station is mentioned as a priority location along with the other BART stations in Contra Costa County. No specific improvements are prescribed for the Treat Boulevard study corridor.

The Contra Costa Bicycle and Pedestrian Plan identifies Treat Boulevard as a part of the Countywide Bicycle Network (CBN) but does not propose a specific treatment.

3.3. Pleasant Hill BART Station Area Specific Plan (1998)

The Pleasant Hill BART Station Area Specific Plan states that a circulation system for bicycles and pedestrians will be provided to support travel between parking areas, transit stops, buildings, the Iron Horse Trail, and the Bart Station.

The Pleasant Hill BART Station Area Specific Plan cites the following bicycle and pedestrian objectives for transportation and circulation:

- **Transportation and Circulation Objective #5** Provide for safe and convenient pedestrian and bicycle movement between the BART Station, Station Area parking, local transit

boarding areas, and major facilities in the Station Area and between the Station Area and nearby residential and commercial areas.”

- **Urban Design Objective #8** Develop areas intensively used by pedestrians at a human scale with adjoining uses which will visually and functionally enliven the area.

The Specific Plan design concepts identify Treat Boulevard as the major entranceway to the Station Area and encourage a pedestrian-friendly environment:

- Emphasize Treat Boulevard as the major entranceway to the Station Area and visually identify this role by the placement of the pedestrian overpass at Oak Road and the pedestrian/bicycle overpass at Jones Road, and the provision of elevated public plazas or pedestrian corridors in the vicinity of the northeast and southeast corners of the intersection (Subareas 12 and 15). Provide sufficient public outdoor space to accommodate the pedestrian activities focused at this location as a result of adjoining office development, BART parking and local transit stop.
- Create a pedestrian-friendly street-level environment by discouraging blank building walls and encouraging windows, doors, and other building facade features.

The Specific Plan identifies policies for bicycle and pedestrian circulation that relate to Treat Boulevard. The policies are shown in Table 3-1.

Table 3-1: Pleasant Hill BART Station Area Specific Plan Policies

<i>Policy</i>	<i>Description</i>	<i>Status</i>
Policy 1	A pedestrian overpass shall be provided at the intersection of Treat Boulevard and Oak Road.	No longer supported and has been removed from Plan
Policy 2	A pedestrian and bicycle overpass should be provided at Jones Road for the Iron Horse Trail.	Complete
Policy 3	If feasible, development on Area 12 should provide for a continuous pedestrian-way from the north end of the pedestrian overpass at Oak Road to the BART Station.	Complete
Policy 7	Undertake a community design program for both pedestrian and bicycle overcrossings as soon as feasible given availability of funding and reasonably defined site geometrics.	Complete

4. Existing Conditions

A site tour was held with the TAC on May 19, 2014. The consultant team also performed several additional field reviews through the month of May.

4.1. Design Assumptions

During the site tour meeting, the design assumptions were confirmed as follows:

- Lane widths shall be no less than 11' or 10.5' for turn lanes
- Medians can be narrowed
- All proposals are to remain within the public right of way

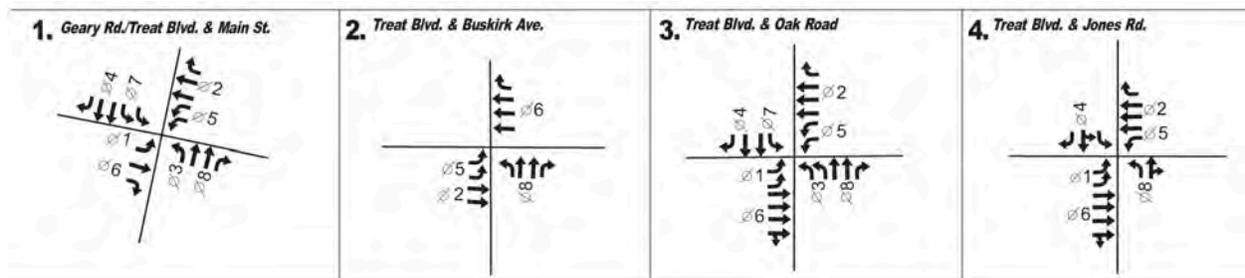
4.2. General Traffic Conditions

The corridor has a 35 mph speed limit. The roadway has excess capacity during off-peak hours as it is sized based on level of service and demand during peak hours.

There are nine lanes in some locations (Figure 4-1), presenting a long distance for pedestrians to cross the street. Reducing this distance, providing longer walk times, or reducing wait times for pedestrians can improve the pedestrian experience. Lane widths within the study area are typically 12' but vary from 11' to 17'.

Long cycle lengths provide higher motor vehicle capacity for the main movements, but delays for other movements and for pedestrians can cause frustration. Long cycle lengths also lead to risk taking such as red-light running.

Figure 4-1: Existing Conditions Lane Configurations and Signal Phasing



Yield controlled channelized right turns are present at all westbound intersections and eastbound at Jones Road. Northbound Buskirk Avenue and southbound Oak Road also have channelized right turns. Dedicated receiving lanes for continuous free flow are present at westbound right turn at Main Street, the southbound right turn at Oak Road, and the northbound right turn at Buskirk Avenue. Although channelized right turns are advantageous for automobile traffic, they present a less comfortable and safe environment for pedestrians and cyclists, who must cross faster moving right turning traffic that frequently does not expect to conflict with pedestrians.

Appendix B presents a more detailed description of existing conditions by location along the corridor, along with traffic count and base model data.

4.3. Land Use and Urban Design

The land uses on Treat Boulevard include office, retail, hotel, and mixed-use residential. The Walgreens shopping center on the northeast corner of Treat Boulevard and North Main Street is not slated for expansion, although the parking lot may be reconfigured to connect to BevMo, a beverage retail establishment directly north.

The Pleasant Hill BART Station Area Plan identifies urban design objectives for building height, form and mass, public spaces, pedestrian circulation, landscaping, signage, building design, and defensible space. Buildings on Treat Boulevard have a minimum three-story height and setback of 20 feet from the street.

The most recent mixed-use development on the north side of Treat Boulevard, between Jones Road and Oak Road, has continuous sidewalks, pedestrian lighting, benches, and trees. A Starbucks on the easternmost corner provides outdoor seating. A parking lane separates pedestrians from the traffic on Treat Boulevard. The light colored concrete on the parking strip and extended right-turn lane is a de-facto space for bicycling.



Photo 1 The north side of Treat Boulevard between Jones Road and Oak Road has continuous building frontage and a pedestrian-friendly public realm.

The south side of the block between Jones Road and Oak Road is reminiscent of typical suburban design. The office buildings are set back approximately 50 feet away from the street. Unlike the north side, which has a continuous building frontage along the sidewalk, the south building’s V-shape sets the entrance to the building back even further. The sidewalk is separated from the traffic by a landscape strip and occasional trees.



Photo 2 The south side of Treat Boulevard has a meandering 6' wide sidewalk

This style is consistent along the majority of the study corridor, with and without the landscape strip, with sidewalk widths varying between 4-8 feet. Along the Embassy Suites frontage on the north side of Treat Boulevard between Oak Road and Buskirk Avenue, there is an 8' wide sidewalk separated from traffic by an 8' wide landscape strip. Trees line both sides of the sidewalk, providing a shade canopy during the summer.



Photo 3 The north side of Treat Boulevard has a tree-lined 8' wide sidewalk

4.4. User Analysis

A field review of the study corridor was conducted in July 2014 during peak hours to observe pedestrian, driver, and bicyclist behavior. The fieldwork included interviews with pedestrians.

The majority of pedestrians were observed walking on the north side of the study corridor. When asked about their experience walking on Treat Boulevard, pedestrians noted that the walk across the I-680 overbridge is “unpleasant” and “always seems to take longer than it should.” Another pedestrian noted that the signals along Treat Boulevard are “really slow,” and can take “double the time if you have to cross two ways.”

The pedestrian phases were timed during field observations. Pedestrians waited up to 120 seconds before receiving a walk indication. At the Treat Boulevard and Oak Road intersection, pedestrians were observed crossing the street during the do-not-walk phase. These pedestrians would cross to the center median, and then wait for the walk signal, presumably to get a head start (Figure 4-2). This suggests that the signal phasing may be too long to accommodate pedestrian commuters, particularly those traveling to catch a BART train.



Figure 4-2: Some pedestrians cross to the median on a Do Not Walk signal to get a head start on the next ped phase

The pedestrian plaza between the Embassy Suites Hotel and Vodafone Building north of Treat Boulevard (Figure 4-3) serves as a common path for pedestrians and bicyclists traveling to and from the BART Station.

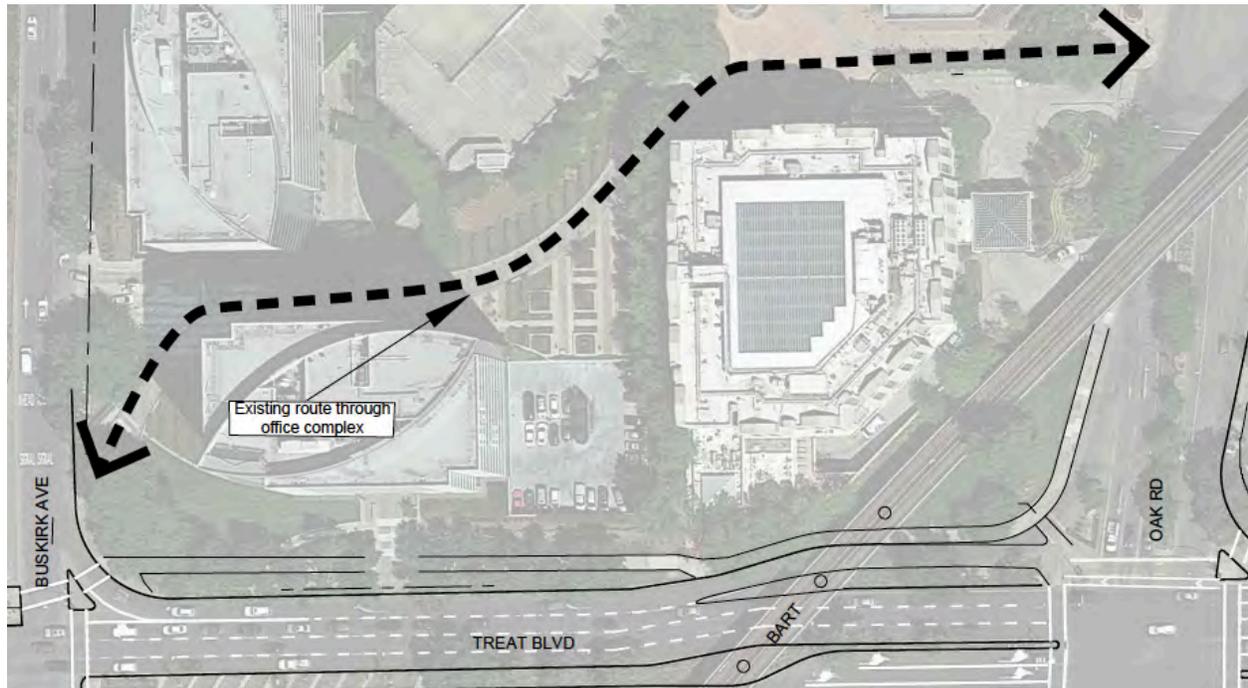


Figure 4-3: Plaza route

Few people were observed bicycling on Treat Boulevard, choosing instead to ride on the sidewalk. On the I-680 overbridge, the majority of riders used the narrow (5') north sidewalk. In some instances, the bicyclist or pedestrian would step into the street to pass a group.

Drivers were observed failing to yield to pedestrians in channelized right turn lane crosswalks, particularly at the northeast corner of Treat Boulevard and Oak Road. Some drivers blocked pedestrian movement by pausing in crosswalks while waiting in a traffic queue.

4.5. Collisions

Recent collision data was requested through Contra Costa County and collected from the Statewide Integrated Traffic Records System (SWITRS). Violation type was recorded for 13 of the 16 total collisions (Table 4-1). Automobile Right of Way was the most common violation for a bicycle/vehicle collision, and Pedestrian Right of Way was the most common violation for a pedestrian/vehicle collision.

The cluster of collisions at Jones Road shown in Figure 4-4 may precede the construction of the Iron Horse Trail overbridge.

The next most frequent location is around Buskirk Avenue, where three bicycle collisions have been reported.

Table 4-1: Bicycle and Pedestrian Collisions Crash Type

Violation	Bicycle	Pedestrian
Automobile Right of Way	2	1
Improper Turning	2	0
Other Hazardous Violation	1	0
Other Improper Driving	0	1
Pedestrian Right of Way	0	3
Unsafe Lane Change	1	0
Unsafe Starting or Backing	2	0
Total	8	5



Figure 4-4: Reported Collisions Map

5. Alternative Concepts

5.1. Concept Overview

Three concepts were developed for the Treat Boulevard Bicycle and Pedestrian Plan. For Concept 1, a lower cost, lower impact version of 1A was also considered. Concept 4 was developed after conducting traffic modeling and outreach. Principal elements of each concept are given in Table 5-1; more details and plan view graphics are provided in Appendix D. An evaluation of the concepts is provided in section 6 of this document.

Table 5-1 Concept Comparisons

<i>Concept</i>	<i>Location</i>	<i>Main Street to Buskirk Avenue</i>	<i>Buskirk Avenue to Oak Road</i>	<i>Oak Road to Jones Road</i>
Concept 1A (short term)	North side / Westbound	Bike lanes	Sharrows	Sharrows
	South side / Eastbound	Bike lanes	Sharrows	Sharrows
Concept 1B	North side / Westbound	Buffered bike lanes	Buffered bike lanes	Buffered bike lanes
	South side / Eastbound	Buffered bike lanes	Buffered bike lanes	Buffered bike lanes
Concept 2	North side / Westbound	Two way shared path	Two way shared path	Buffered bike lane
	South side / Eastbound	Bike lane	Buffered bike lane	Buffered bike lane
Concept 3	North side / Westbound	Two way shared path	Two way shared path	Cycle track
	South side / Eastbound	Sidewalk	Sidewalk	Sidewalk
Concept 4: Recommended Combined Concept	North side / Westbound	Two way shared path	Two way shared path	Sharrows
	South side / Eastbound	Sidewalk	No change	No change

5.2. Pedestrian Improvements

All concepts, with the exception of 1A, propose pedestrian enhancements at crosswalks along the study corridor. These improvements include:

- Enhancing the existing crosswalks at channelized free right turns along the study corridor with high visibility continental or ladder striping, “sharks-teeth” yield markings and signs
- Reconstructing the channelization island at Treat Boulevard and Buskirk Avenue to meet Americans with Disabilities Act (ADA) standards.

A sample graphic showing a channelized right turn lane with “shark’s teeth” yield markings, high visibility ladder style crosswalk, and tactile ground surface indicators on the ADA standard curb ramps is shown in Figure 5-1. For those concepts where bicycle lanes are provided, this graphic indicates how a bike lane would be configured where the turn lane is an “add-lane.” The bike lane is straight and motorists must merge across the path of bicyclists.

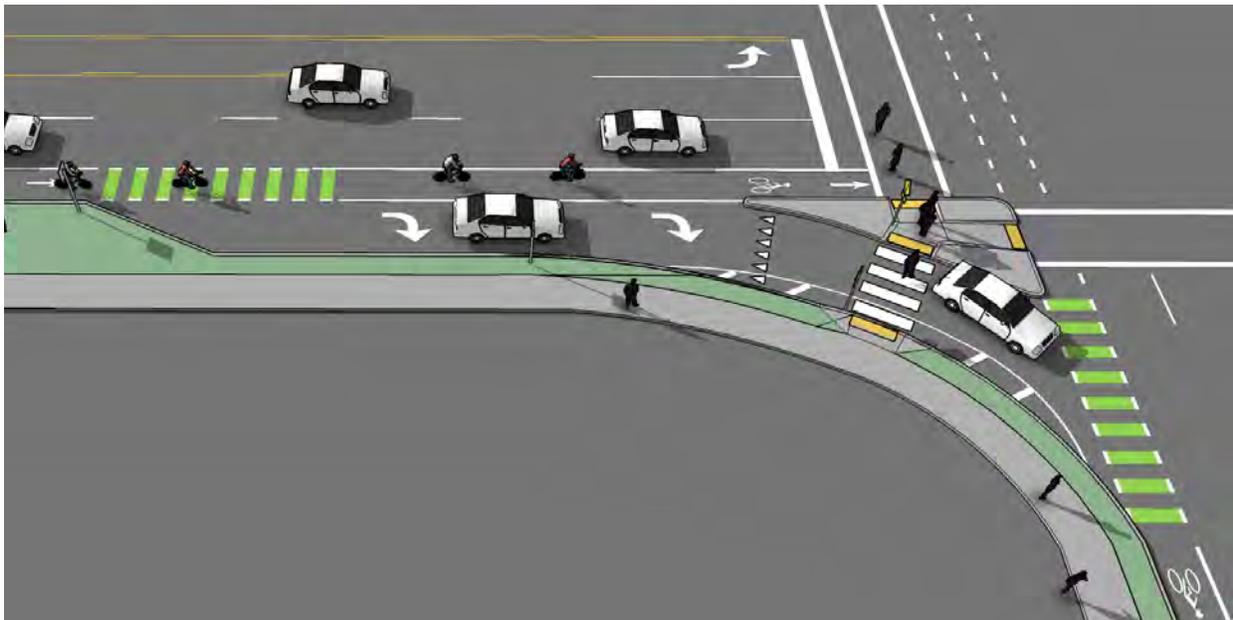


Figure 5-1: Conceptual provisions for pedestrians and bicyclists at a channelized right turn lane

5.3. Concept 1A: Standard Bicycle Lanes

Concept 1A proposes bike lanes on Treat Boulevard between Main Street and Buskirk Avenue by narrowing travel lanes to the County specified minimum 11' width. East of Buskirk Avenue, bike lanes could only be accommodated if travel lanes were reduced to 10' width (below the County specified minimum). Accordingly, sharrows could be employed. While sharrows are permitted on roadways with 35 mph speed limits, they are not an ideal solution as few people will “take the lane” with motorists traveling at that speed. Green paint would be provided at the bike lane entrances and at conflict points to make the bike lanes more visible to motorists.

Altogether, the Concept 1A enhancements would be easy to implement and less costly than the other alternatives; however, they would offer limited improvement to the bicycle and pedestrian experience on Treat Boulevard. Concept 1A does not remove any travel lanes and would have minimal impact on the driving experience or traffic movements. Concept 1A could be considered as an option for short-term improvements.

5.4. Concept 1B: Buffered Bike Lanes

Concept 1B proposes buffered bike lanes along the full extent of the study corridor. The buffer between the bike lane and adjacent motor vehicle lane offers bicyclists an increased sense of safety. Green paint at the bike lane entrances and the conflict zones make the bike lanes more visible to motorists. These enhancements can be done by converting the outside travel lanes into the buffered bike lanes.



Figure 5-2: Concept 1B buffered bike lanes at I-680

Concept 1B would remove the outside eastbound and westbound travel lanes, remove the eastbound channelized right-turn lane at Treat Boulevard and Jones Road, and narrow the curb radius at the eastbound I-680 on-ramp between Main Street and Buskirk Avenue. Although removing the southbound channelized right turn at Oak Road reduces capacity, it also eliminates the weaving operation between Oak Road and the I-680 ramps, which improves traffic operation and safety along Treat Boulevard.

5.5. Concept 2: Shared Use Path and Buffered Bike Lanes

Concept 2 proposes converting the existing north side sidewalk into a shared use path between Main Street and Oak Road, adding buffered westbound bike lanes between Oak Road and

Jones Road, and adding eastbound buffered bike lanes for the full extent of the study area. The vertical curb provides an enhanced sense of safety for pedestrians and bicyclists.



Figure 5-3: Concept 2 shared use path (north side) and buffered bike lane (south side) at I-680

At Treat Boulevard and Oak Road, bicyclists would be partially separated from motor vehicles with curbs and islands to reduce the risk of collisions between bicyclists and right-turning vehicles. Channelized right turns at Oak Road and Jones Road would be removed.



Figure 5-4: Concept 2 at Oak Road

Concept 2 can be implemented by narrowing lanes, and converting the outside eastbound lane between Buskirk Avenue and Jones Road into a buffered bike lane. Although capacity is reduced by removing the southbound channelized right turn at Oak Road, this also eliminates the weaving operation between Oak Road and the I-680 ramps, which improves traffic operation and safety along Treat Boulevard. The expansion of the north sidewalk into a two-way shared-use path, the construction of the protected intersection, and the removal of the channelized right turns would result in higher costs than Concept 1A and 1B.

5.6. Concept 3: Shared Use Path, Cycle Track and Sidewalk

Concept 3 proposes converting the existing north sidewalk into a shared use path between Main Street and Oak Road, and adding a westbound cycle track between Oak Road and Jones Road. The shared use path is used by both pedestrians and bicyclists. It provides bicyclists with a grade separation from motor vehicles and therefore a greater sense of safety. The cycle track would be a bike lane separated from the travel lanes by a row of parked cars. This physical separation from the travel lanes provides bicyclists with a greater sense of safety. The eastbound outside lane would have sharrows, which are a marginal but low cost solution on roadways with speed limits up to 35 mph (as with Treat Boulevard).

Concept 3 proposes removing channelized right turns at Oak Road and Jones Road, designating the sidewalk between Main Street and Buskirk Avenue as a 10-foot wide two-way shared-use path, adding a sidewalk to the south side between Main Street and Buskirk Avenue, and expanding the existing south sidewalk with a landscape strip between Buskirk Avenue and Oak Road. The south sidewalk would offer pedestrians an alternative walking option to the new shared-use path, where pedestrians would share the same space with bicyclists.



Figure 5-5: Concept 3 shared use path (north side) and sidewalk (south side) at I-680

Concept 3 can be done by narrowing lanes, removing channelized right turns, and converting the right-turn lane between Oak Road and Jones Road into the cycle track. Although capacity is reduced by removing the southbound channelized right turn at Oak Road, this also removes the weaving operation between Oak Road and the I-680 ramps, which improves traffic operation and safety along Treat Boulevard. This design results in some impact to the intersection level of service (LOS) and results in more overall network delay and higher travel times due to the removal of one eastbound and one westbound travel lane. Concept 3 has a small delay impact at Oak Road during the morning peak hour and Main Street during the

afternoon peak hour. The expansion of the north sidewalk into a two-way shared-use path, the removal of the channelized right turns, and the construction of the south side sidewalk would result in higher costs than Concept 1A and 1B.

5.7. Concept 4: Shared Use Path and Sidewalk

This study originally was to include development of up to three concepts. Through an iterative development process and with stakeholder input, selected elements of the original three concepts were combined into Concept 4. While this concept does not provide as substantial an improvement for bicyclists and pedestrians as might be achieved with some elements not carried forward from the other concepts, it is a compromise predicated on the assumption that all travel lanes must be retained and must be at least 11' wide. Plans are provided for this concept in Appendix D.

5.7.1. Main Street to Buskirk Avenue

The concepts that included traffic lane removals are not supported by the traffic modeling, but lane *width* reductions enable the installation of paths on both sides of the bridge:

- On the north side, the existing sidewalk would be replaced with a 12' wide shared use path. Minor improvements would be made to reduce potential conflicts at the Walgreens driveways.
- On the south side, Treat Boulevard has enough space for either an on-street eastbound bike lane or a new southern sidewalk facility without removing travel lanes. Concept 4 includes a south side sidewalk to improve pedestrian connectivity, because eastbound bicyclists will be able to use the north side shared-use path or the curbside traffic lanes.



Figure 5-6: Concept 4 shared use path (north side) and sidewalk (south side) at I-680 (as per Concept 3)

5.7.2. Buskirk Avenue to Oak Road

All travel lanes remain in Concept 4 due to the heavy traffic volume at Buskirk Avenue turning right towards northbound I-680. As such, the cycle track element was not included.

5.7.3. Oak Road to Jones Road

Neither bike lanes, sharrows nor cycle tracks were chosen for this section of Treat Boulevard for the following reasons:

- Eastbound bike lanes cannot be accommodated without removal of a traffic lane or reduction of lane widths below the County’s minimum to 10’. Modeling indicates an unacceptable impact on motorist level of service. Furthermore, Treat Blvd is currently not a hospitable route for bicycling east of Jones Road and there is low demand relative to the rest of the corridor; therefore, this portion of the route is likely to attract only more confident “vehicular” bicyclists.
- Eastbound sharrows were not chosen for this section because the volume and speed of traffic would not provide a comfortable environment for bicyclists. Instead, bicyclists should be encouraged to use the shared-use path on the north side of the road.
- Westbound sharrows were chosen for this section to accommodate and direct bicyclists either westbound onto the shared-use path or northbound toward the BART station once they reach the Oak Street and Treat Boulevard intersection. The sharrows will be located on the dedicated westbound right-turn lane, which will have lower traffic volumes and provide a more comfortable environment for people on bikes.
- The landing points for the Iron Horse Trail overcrossing are approximately 500 feet north and south of the intersection.

Implementation of a separate bikeway along Treat Boulevard in this block may be possible in the long-term, depending on the motor traffic volume and wider network changes that may occur.

5.7.4. Concept 4 Phasing

Concept 4 could be implemented in two phases. The short-term Phase 1 would include the north side path between Main Street and Buskirk Avenue and the south side (eastbound) sidewalk extension between Main Street and the I-680 northbound off ramp.

Phase 2 includes more significant traffic signal and intersection layout modifications:

- At Main Street, two-stage bicycle turn facilities would enhance bikeway connectivity but will require property negotiations and/or retaining walls
- At Oak Road, removing the southbound channelized right turn would reduce the weaving of westbound motorists on Treat Boulevard, improving traffic operation and safety. This would require the relocation of signal poles and major curb realignments.

The route to and from the BART station is shown in Figure 5-7, which is an extract of a full size sheet provided in Appendix D. People already bike on both of the indicated routes (red and blue). However, the Phase 2 project would improve conditions for bicycling across and along the east side of Oak Road. If Phase 2 improvements were made, people could still choose to cross Oak Road at Coggins Drive and bike along the west side.

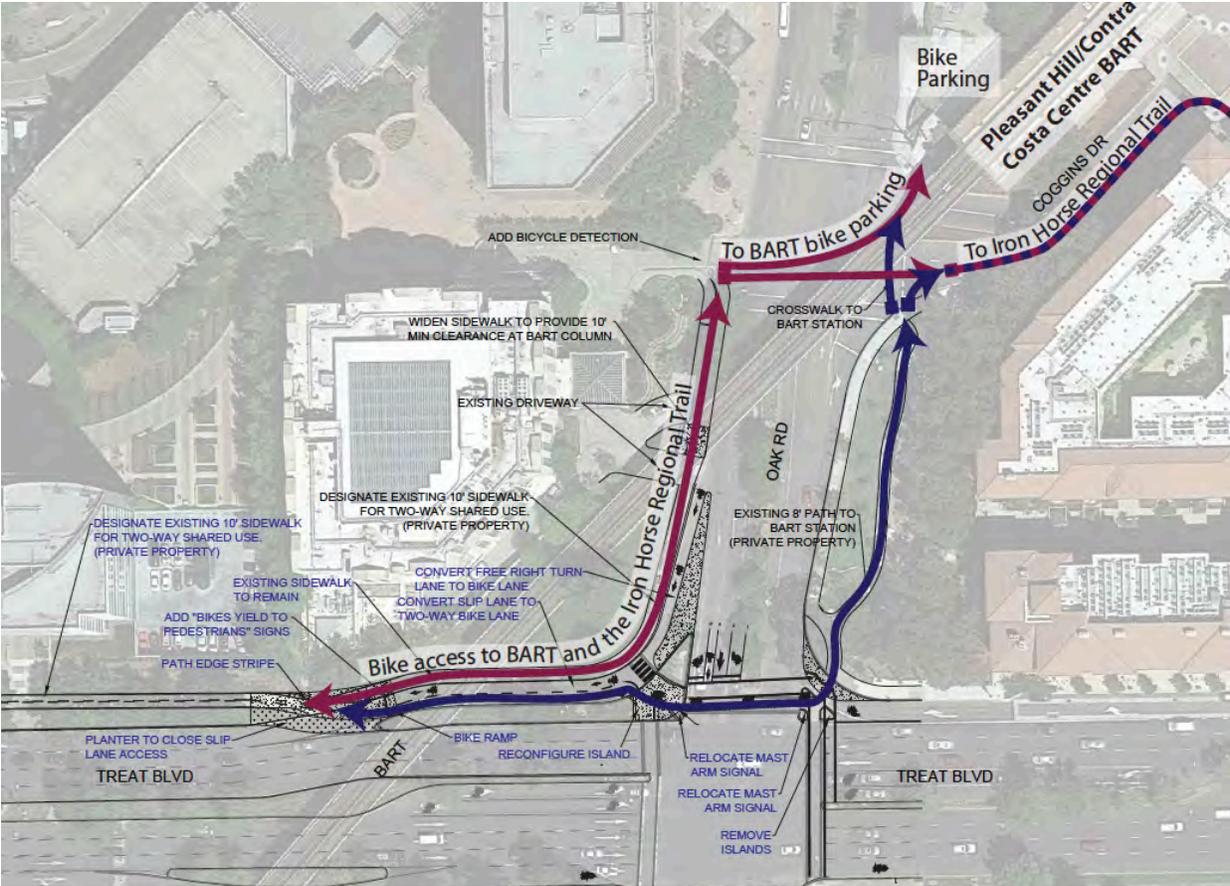


Figure 5-7: Concept 4 phasing (Phase 1 black text and red line, Phase 2 purple text and blue line). Please refer to Appendix D for a full plan sheet.

5.7.5. Phase 2 Design Mitigations

Preliminary traffic analysis indicated that the removal of the free right turns (Phase 2) generally has a negative impact on delay and queuing at Oak Road during the morning and evening peak periods when compared to the Phase 1 improvements. Accordingly, three mitigation scenarios were developed. Incorporating one of these mitigations into Concept 4 should be explored during future design development.

Mitigation 1 - Signal Timing

Mitigation 1 involves signal timing adjustments to overlap the southbound right turn (SBRT) movement with the eastbound left turn (EBLT) movement to allow better traffic flow for the SBRT movement. By allowing SBRT traffic to turn during the EBLT (as is the case with the existing channelized turn lane), the queue will dissipate faster.

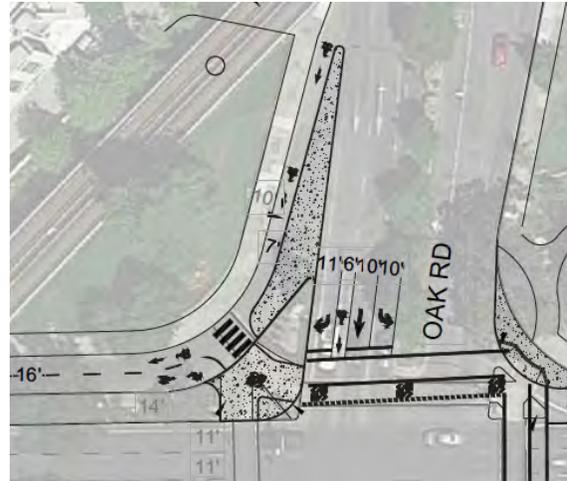


Figure 5-8: Mitigation 1 geometry

Mitigation 2 - Two Right Turn Lanes

Mitigation 2 (Figure 5-9) is a modification of the southbound approach, providing for one southbound left turn (SBLT) lane, one southbound through (SBTH) lane, and two SBRT lanes.

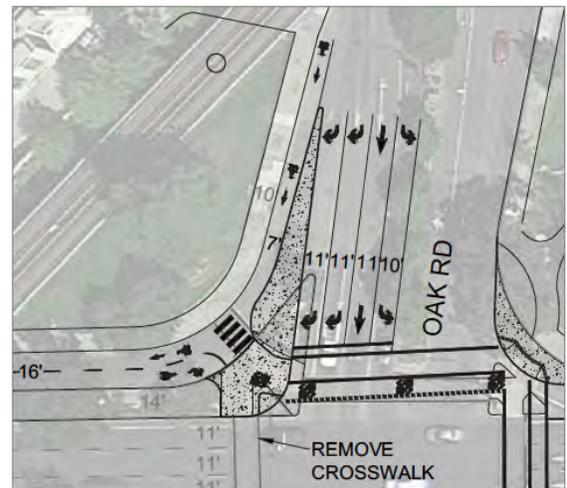


Figure 5-9: Mitigation 2

The geometric modification includes offsetting the curb at the northeastern corner of the intersection inwards and cutting back the median nose on the east leg to accommodate SBLT movements. The tradeoff for the queue length reduction is the need to eliminate the west leg crosswalk. Otherwise, pedestrians are at risk from the “multiple strike” threat where one motorist cannot see a crossing pedestrian due to the vehicle in the adjacent lane.

Mitigation 3 - Signal Timing, Two Through Lanes

Mitigation 3 (Figure 5-10) is a modification of the southbound approach to include one SBLT lane, two SBTH lanes, and one SBRT lane. The signal would operate with a SBRT/EBLT overlap in this scenario as well.

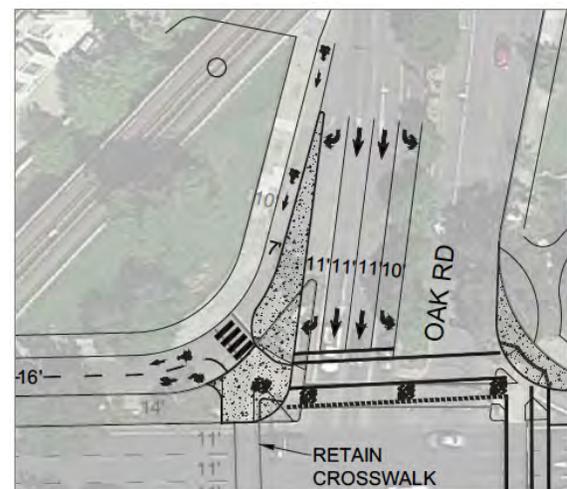


Figure 5-10: Mitigation 3

6. Concept Evaluation

6.1. Traffic Analysis for All Concepts

This section includes a summary of the separate detailed traffic report. When looking at the average intersection LOS, the design concepts result in little impact for the current year (2014) traffic volumes (Table 6-1) or for the future year (2040) traffic volumes (Table 6-2). Concept 1A and Concept 4 Phase 1 were not analyzed because they do not involve any changes to the number of lanes or intersection layouts.

Table 6-1: All Concepts - Intersection LOS Comparison for Current Year (2014)

Intersection	Peak Hour	Existing		Concept 1B		Concept 2		Concept 3		Concept 4 (Phase 2)	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Main Street*	A.M.	55.7	E	60.0	E	60.1	E	60.1	E	60.1	E
	P.M.	42.9	D	41.1	D	42.2	D	42.2	D	42.2	D
I-680 NB and Buskirk Avenue	A.M.	30.3	C	32.9	C	30.3	C	30.3	C	30.3	C
	P.M.	17.5	B	17.7	B	17.4	B	17.4	B	17.4	B
Oak Road	A.M.	46.8	D	55.5	E	53.6	D	53.6	D	49.3	D
	P.M.	19.3	B	39.4	D	40.1	D	40.1	D	34.1	C
Jones Road*	A.M.	37.6	D	28.8	C	29.8	C	29.8	C	29.9	C
	P.M.	49.8	D	37.7	D	38.2	D	38.2	D	37.9	D

Table 6-2: All Concepts - Intersection LOS Comparison for Future Year

Intersection	Peak Hour	No Build		Concept 1B		Concept 2		Concept 3		Concept 4 (Phase 2)	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Main Street*	A.M.	83.1	F	86.0	F	83.3	F	83.3	F	83.3	F
	P.M.	67.9	E	67.4	E	75.9	E	75.9	E	75.9	E
I-680 NB and Buskirk Avenue	A.M.	31.4	C	36.4	D	30.5	C	30.5	C	30.5	C
	P.M.	19.9	B	24.9	C	13.7	B	13.7	B	13.8	B
Oak Road	A.M.	63.8	E	63.3	E	67.3	E	67.3	E	67.5 (67.6) [61.9] ¹	E
	P.M.	46.3	D	48.9	D	45.5	D	45.5	D	36.7 (29.3) [30.5] ¹	D
Jones Road*	A.M.	61.9	E	61.9	E	49.6	D	49.6	D	49.6	D
	P.M.	211.9	F	212.4	F	212.1	F	212.1	F	212.1	F

¹ Free right turn removal at Oak Road Mitigation 1, (Mitigation 2), and [Mitigation 3]

6.2. Concept 4 Phase 2 Future Year Analysis (2040)

The Concept 4 Phase 2 project involves removal of channelized right turns on the north side of Treat Boulevard at Oak Road. As the date of such changes is unknown, a conservative approach to modeling individual movement intersection delay and LOS is to use the volumes assumed for the future year (2040). A queuing analysis was also completed for movements of concern.

Table 6-3 presents the findings for Phase 1 (in traffic terms, equivalent to no build) and Phase 2. As shown, intersection delay is high in general for the future year. For the future year alternatives, the signal timings were optimized to benefit the overall performance of the Treat Boulevard corridor in both directions. This optimization results in higher delays for side street and left turn movements, as indicated by the high delay at Treat Boulevard/Jones Road during the p.m. peak hour. Although performance degrades slightly with the free right turn removal at Oak Road, the high weaving volumes observed between Oak Road and the I-680 ramps are mitigated. Removing the inefficient and unsafe weaving behavior on this segment reduces the potential negative impact of the improvements at the corridor level.

Mitigation 1

As shown in Table 6-3, the model predicts that the Phase 2 project with mitigation 1 will have up to a 314 ft. SBRT queue. during the p.m. peak hour as compared to Phase 1 (and no build) project queue length of 498 ft. The improvement is due to permissive right turns during the overlap, where pedestrians are currently unfettered at the channelized right turn. For the SBTH movement, the queue will be up to 694 ft. long during the A.M. peak hour as compared to 273 ft. for the Phase 1 project. The available queuing space on Oak Road between Coggins Drive and Treat Boulevard is 275 ft., which means that vehicles will continue to stack upstream of Coggins Drive. However, the 694 ft. queue during the morning corresponds to an average delay less than the cycle length, meaning that, on average, vehicles are able to travel through the intersection on the first green indication that they receive. As this is an average, some vehicles may have to wait for the second green they receive.

Mitigation 2

Mitigation 2 results in a predicted queue length decrease for the SBRT movement during the A.M. and P.M. peak hours (113 ft. versus the 211 ft. predicted for Mitigation 1). Again, this improvement is substantial compared to the Phase 1 or no build alternatives – this time due to the removal of the west leg crosswalk. However, the queuing for the SBTH is expected to increase during the A.M. and P.M. peak hours. As with Mitigation 1, the long SBTH queue during the morning corresponds to an average delay less than the cycle length.

Mitigation 3

Mitigation 3 is expected to result in queue length increase for the SBRT movement during the A.M. peak hour and a small increase in queue length for the SBTH movement for the p.m. peak hour. This scenario results in better intersection delay and queue lengths than Mitigation 1 and Mitigation 2. If confirmed in detailed design, this option appears to provide the best combination of pedestrian and automobile LOS.

Table 6-3: Concept 4 Intersection LOS Comparison for Future Year (2040)

Intersection	Peak Hour	Phase 1 Project (equivalent to no build in traffic terms)				Phase 2 Project Mitigation 1, (Mitigation 2), [Mitigation 3]			
		Delay (s)	LOS	Movmt. of Interest	Queue Length (ft)	Control Delay (s)	LOS	Movmt. of Interest	Queue Length (ft)
Treat Boulevard and Main Street*	A.M.	>80	F	WBLT	455	Not Applicable			
				WBRT	0				
	P.M.	75.9	E	WBLT	506				
				WBRT	562				
Treat Boulevard and I-680 Northbound Ramps/Buskirk Avenue	A.M.	30.5	C	WBRT	310				
				NBRT	0				
	P.M.	13.8	B	WBRT	135				
				NBRT	0				
Treat Boulevard and Oak Road	A.M.	61.3	E	SBRT	0	67.5 (67.6) [61.9]	E	SBRT	211 (113) [211]
				SBTH	273			SBTH	694 (694) [276]
				WBRT	25			WBRT	n/a
				WBTH	188			WB TH/RT	193 (193) [193]
	P.M.	30.9	C	SBRT	498	36.7 (29.3) [30.5]	D	SBRT	314 (188) [314]
				SBTH	198			SBTH	445 (445) [217]
				WBRT	0			WBRT	n/a
				WBTH	64			WB TH/RT	67 (67) [67]
Treat Boulevard and Jones Road*	A.M.	49.6	D	No movement of interest		Not Applicable			
	P.M.	>80	F						

Notes:

HCM 2010 analysis unless specified by *, where HCM 2000 analysis used due to HCM 2010 limitations.

Queue Length = 95th Percentile Queue Length

Mitigation 1 – Overlap signal operation for SBRT with EBLT

(Mitigation 2) – Reconfigure SB approach to have double SBRT, requires removal of west crosswalk

[Mitigation 3] – Reconfigure SB approach to have double SBTH and a SBRT with overlap operation

6.3. Multi-Criteria Analysis

All concepts were evaluated for future conditions based on a list of criteria described below. For each concept, the reallocation of the eastbound curbside lane to a bike lane has been omitted as the traffic impact was estimated to be unacceptable. The evaluation criteria are described below; the scores can be seen in Table 6-4 on the next page.

- Bicycle Experience: the perceived safety and convenience of traveling the corridor by bike.
- Pedestrian Experience: the perceived safety and convenience of traveling the corridor by foot.
- Driving Experience: the comfort and convenience of traveling the corridor by automobile.
- Ease of Implementation: the amount of planning, design and construction required to implement the concept.
- Cost: the amount of funding required to implement the concept.
- Traffic Impacts (level of service): defined in the separate Traffic Report and relates to the amount of delay in travel speeds along the corridor and at intersections.

Concept 4 scores highest – a balance between bicycle and pedestrian improvements with motorist level of service and cost effectiveness.

Table 6-4: Concept Evaluation

Criterion	No Build	Concept 1A	Concept 1B	Concept 2	Concept 3	Concept 4
	No change	Limited Bike lanes	Buffered Bike Lanes	Shared Use Path and Buffered Bike Lanes	Shared Use Path, Cycle Track and South side Sidewalk	Shared Use Path and South side Sidewalk
Bicycle Experience	0	1	2	3	2	2
Pedestrian Experience	0	0	1	2	3	3
Driving Experience	0	0	2	2	2	2
Ease of Implementation	3	3	2	0	-1	0
Cost	-1	-1	-2	-3	-3	-3
Traffic Impacts (level of service)	-1	0	-2	-2	-1	0
Total Score	1	2	3	2	2	4

Table 6-5 Scoring Levels

Very Significant Negative	Significant Negative	Minor Negative	Neutral	Minor Positive	Significant Positive	Very Significant Positive
-3	-2	-1	0	1	2	3

Appendix A: Study Participants

Client

Jamar Stamps Planner, Contra Costa County Department of Conservation and Development

Technical Advisory Committee

Jeremy Lochiro City of Walnut Creek

Angela Villar Engineer, Contra Costa County Public Works

Coire Reilly Contra Costa County Health Services Department

Anh Phan Nguyen Caltrans

Denise Seib Contra Costa Centre Association

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John Vallor Contra Costa County MAC

Brad Beck Contra Costa County Transportation Authority

Alta Planning + Design

Brett Hondorp, AICP Principal-In-Charge

John Lieswyn, PTP, MET Consultant Team Project Manager

Alexandra Sweet Senior Planner

DKS

Thomas Krakow, P.E. Principal-In-Charge

David Mahama, P.E. Project Manager

Maria Tribelhorn, E.I.T Assistant Transportation Engineer

Others

IDAX Data Collection

Quality Counts, LLC Data Collection

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Appendix B: Existing Conditions by Location

North Main Street

Both the westbound left turn/U-turn and westbound right turn movements are heavy at this intersection. Due to the high turning volumes and high left lane utilization, the queue from westbound traffic turning into N. Main Street backs to the I-680 ramps during the A.M. peak hour. The westbound left turn bays are not adequate for the forming left turn queues and vehicles sometimes queue in the through lanes, creating potential for rear-end collisions and congestion.

The southbound left turn volumes are high at N. Main Street during both the morning and afternoon peak periods. Queues spill back beyond the turn bays during both time periods.

Currently N. Main Street operates in coordination with Ygnacio Valley Road (coordinated north-south), rather than in coordination with the Treat Boulevard corridor, which may contribute to the formation of westbound queues. East-west coordination could be considered as a potential alternative for this location. Ygnacio Valley Road is about 3 miles south of the Treat Boulevard/N. Main Street intersection. There are four traffic signals on N. Main Street between Ygnacio Valley Road and Treat Boulevard. Additionally, Ygnacio Valley Road, N. Main Street and Treat Boulevard have interchanges with the I-680 freeway.



Photo 4 View of westbound Treat Boulevard approaching N. Main Street. Existing bicyclist use of sidewalk in conflict with Walgreens driveway turning movements.



Photo 5 View of Treat Boulevard and N. Main Street. Right-turn slip lane creates two points of potential conflict between motorists and pedestrians.

The City of Walnut Creek will be paving North Main Street from Treat Boulevard northward in 2015 and from Treat Boulevard southward in 2016. Minor configuration and/or striping changes may be accommodated at that time.

I-680 Overcrossing

The bridge that crosses over I-680 between N. Main Street and I-680 Northbound off-ramp has no sidewalk on the south side and a narrow (5' to 8') sidewalk on the north side. Despite the fact the sidewalk is not wide enough to comfortably accommodate two pedestrians walking side-by-side, it is also shared by cyclists due to the roadway traffic conditions and lack of separate bicycle facilities. The I-680 overcrossing has three westbound through lanes and two eastbound through lanes and two eastbound left-turn lanes. The bridge carries over 20,000 vehicles per day in each direction, for a total average daily traffic of about 40,000 motor vehicles.

The bridge has wide shoulders in both directions, but particularly in the westbound direction, which presents an opportunity to increase the pedestrian and bicycle space. This could be accomplished through one or a combination of the following: lane adjustment, addition of a sidewalk on the south side of the bridge, widening of the existing sidewalk, and/or addition of bicycle lanes or a cycle track. The construction of a shared path on one side would provide service to both pedestrians and bi-directional travel for cyclists on one side of the road. The path provides excellent service to non-automobile modes, but requires 15' of space including path, shoulder, and traffic buffer.



Photo 6 View east along the existing 5' wide sidewalk on the I-680 overcrossing. Pedestrians are observed walking in the traffic lane to overtake one another.

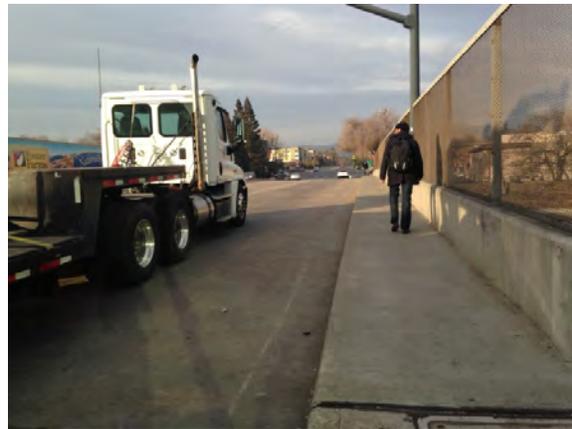


Photo 7 View west along the sidewalk on the overcrossing. A pedestrian commented that the walk on the overcrossing "is unpleasant and always seems to take longer than it should."

I-680 Ramps/Buskirk Avenue

The I-680 northbound ramps at Buskirk Avenue present a challenge to pedestrians wishing to cross the intersection. The northbound right turn traffic onto Treat Boulevard is heavy and due to channelization does not always yield to pedestrians and bicycles.

During the morning peak period, the northbound left turn queues occasionally exceed the left turn lane storage capacity. During the evening peak period, the eastbound Treat Boulevard traffic turning left onto the I-680 ramp was observed to exceed the left turn storage.



Photo 8 View west of the I-680 overcrossing sidewalk from Buskirk Avenue. Current 5' wide sidewalk is insufficient for two-way pedestrian use. Bicyclists were observed using this facility to travel east and west instead of using the roadway.



Photo 9 View west of the I-680 overcrossing, south side from Buskirk Avenue. No sidewalk or bike lane exists along this side of the overcrossing.



Photo 10 North crosswalk of Buskirk Avenue typifies some of the existing curb ramps with uneven surfaces difficult to traverse for those with mobility impairments.



Photo 11 The northbound I-680 offramp has heavy right turn volumes at peak times

Treat Boulevard between Oak Road and the I-680 Ramps/Buskirk Avenue

Westbound

The southbound right turn lane at Oak Road has its own receiving lane westbound, which immediately becomes a right turn only onto Buskirk Avenue and the I-680 NB on ramp. This layout causes weaving conflicts on westbound Treat Boulevard due to the high demand for northbound I-680. Further exacerbating this issue, the BART support columns separate the lanes of travel and limit visibility for traffic merging from the right lane.

These conditions contribute to the formation of a westbound queue during the afternoon peak hour. Weaving conflicts demand driver attention, often taking away driver awareness of pedestrians and bike riders. Due to this lack of attention, bike riders are currently safest riding in the middle of the lane rather than at the edge of the lane, which is ideally where a bicycle lane would be located. As indicated by low bicycle volumes on this segment (three westbound during the P.M. peak hour), few cyclists brave this environment. Weaving traffic and high right lane utilization through this segment cause traffic to spill back to Oak Road, reducing the number of vehicles that can travel westbound through the Oak Road and Jones Road intersections during a green light, effectively “wasting” green time at these intersections.



Photo 12 View of westbound Treat Boulevard from Oak Road. Traffic from Oak Road merges into the right lane for I-680 northbound.



Photo 13 View looking east on the north side of Treat Boulevard. The 8' wide treelined sidewalk is also used by bicyclists traveling both directions.

Eastbound

The eastbound segment on Treat Boulevard between the I-680 ramps and Oak Road is also characterized by high weaving volumes during the morning and afternoon peak periods. Heavy traffic from the I-680 northbound ramp merge into the eastbound lanes where weaving conflicts arise between motorists turning at Oak Road or Jones Road. The BART support columns separate the lanes and limit visibility, exacerbating this issue.



Photo 14 View east towards Oak Road on the south side of Treat Boulevard.

Oak Road

Oak Road is commonly used for pedestrian access to the BART station. About 90 pedestrians cross Treat Boulevard at Oak Road during the morning peak hour. Because the cycle length is long (160 seconds in the morning), some pedestrians cross illegally against the light by finding gaps in queued traffic or between platoons of cars. During the morning peak period, the westbound left turn and northbound left turn queues occasionally exceed the left turn lane storage capacity.



Photo 15 View north along Oak Road. Cyclists accessing BART use the shared path on the west side of Oak Road, cross at Coggins Drive to the east side of Oak Road to continue north to BART or cross Oak Road and continue up the path on the east side of Oak Road.



Photo 16 View west on the east side of Oak Road, showing northbound free right turn lane and splitter island: cars speed around the corner, or block the crosswalk while waiting to merge.



Photo 17 At the intersection of Oak Road and Treat Boulevard, pedestrians have up to a two-minute wait time to cross the street. One pedestrian commented on the length of the crosswalk and time required to cross. Several pedestrians were observed walking down the Treat Boulevard median.



Photo 18 Pedestrians can wait in the middle of the roadway if they started crossing late in the phase and did not make it across before the end of the phase. While the pushbutton is in reach of wheelchair users, the relatively narrow median and lack of protection from turning vehicles makes it an intimidating place to wait.

Treat Boulevard between Jones Road and Oak Road

Westbound

During the P.M. peak period, about 70 vehicles complete the westbound right turn movement from Treat Boulevard to Oak Road. There is an existing free right turn for this movement. This volume could be accommodated without the existing free right turn.

The pace speed during periods ranges between 21 - 35 mph in both directions.



Photo 19 Bicyclists are likely to be currently utilizing the lighter colored concrete strip to the right of the dashed lane line

Eastbound

East of Jones Road the number of eastbound through lanes drops from four to three, and based on field observations it appears most through vehicles avoid the rightmost lane for this reason. With fewer destinations and the limited bicycling facilities east of Jones Road, this segment is a lower priority for bikeway improvements.



Photo 20 Treat Boulevard looking east toward Jones Road. A non-compliant MUTCD sign tells drivers to "observe pedestrian right of way."

Jones Road

Few pedestrians and bicyclists are observed using the Treat Boulevard crosswalk at Jones Road, perhaps electing to use the Iron Horse Trail overcrossing. Westbound Treat Boulevard traffic making a left turn into Jones Road occasionally exceeds the left turn storage capacity during the morning and evening peak period.

Appendix C: Additional Traffic Data

The following traffic data and motor traffic level of service modeling is summarized from the separate Traffic Technical Memorandum.

Traffic Data

Data was collected as follows:

- Turning movement counts for all users collected with a 24-hour video count during a sunny, dry day on Tuesday May 13, 2014 along Treat Boulevard at North Main Street, Buskirk Avenue, Oak Road and Jones Road
- Weekday and weekend motor traffic counts collected with pneumatic tube counters placed on Treat Boulevard between the Jones Road and Oak Road intersections over the seven-day period between May 31 to June 5, 2014

Based on the tube counts, approximately 48,000 vehicles per average weekday use Treat Boulevard (both directions). Figure C-1 presents the peak period turning movement counts for the four study intersections. Full datasets are available in the separate traffic analysis report.

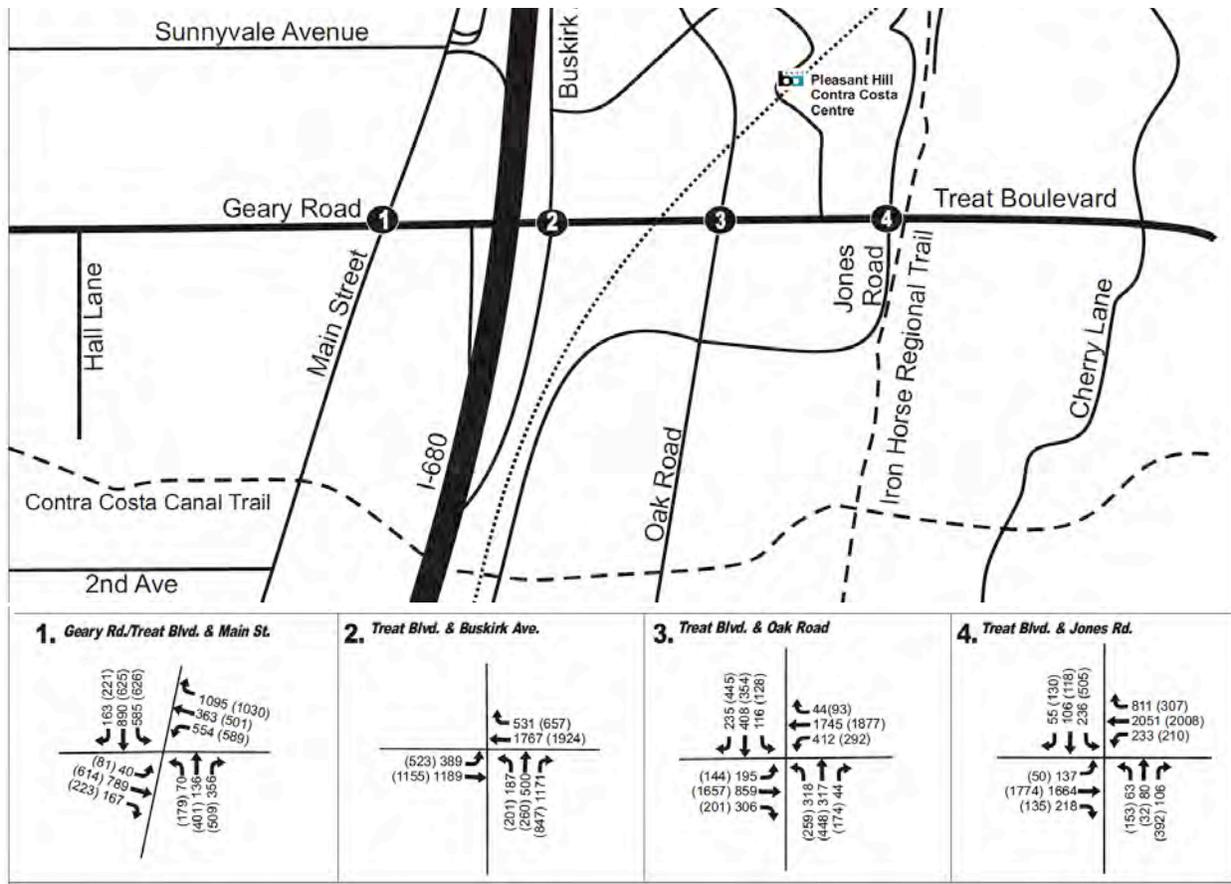


Figure C-1: AM (PM) peak period turning movement counts

Table C-6 and Table C-7 summarize the morning and afternoon peak period pedestrian and bicycle counts for the study intersections.

Table C-6: Existing Pedestrian Count Summary

ID	Intersection	Peak Period (1-hour counts)	South Crosswalk	North Crosswalk	East Crosswalk	West Crosswalk	Total
1	Treat Blvd/ Main St	A.M.	5	27	4	8	44
		P.M.	7	36	4	17	64
2	Treat Blvd/ Buskirk Ave	A.M.	--	51	2	--	53
		P.M.	1 --	44	0	1 --	46
3	Treat Blvd/ Oak Rd	A.M.	6	29	84	6	125
		P.M.	26	23	46	27	122
4	Treat Blvd/ Jones Rd	A.M.	18	10	13	20	61
		P.M.	23	13	17	19	72

Notes:

-- Crosswalk does not exist

1-- Crosswalk does not exist but one pedestrian crossed illegally

n/a – Data not available

Table C-7: Existing Bicycle Count Summary

ID	Intersection	Peak Period (1-hour counts)	Southbound	Northbound	Eastbound	Westbound	Total
1	Treat Blvd/ Main St	A.M.	1	0	2	2	5
		P.M.	1	1	3	0	5
2	Treat Blvd/ Buskirk Ave	A.M.	--	0	0	1	1
		P.M.	--	0	0	3	3
3	Treat Blvd/ Oak Rd	A.M.	0	2	0	1	3
		P.M.	0	2	1	0	3
4	Treat Blvd/ Jones Rd	A.M.	0	0	0	2	2
		P.M.	2	1	0	13	16

Notes:

-- Direction does not exist at intersection

Motorist Traffic Level of Service Model

This data was used to build an existing conditions traffic model that evaluates motorist level of service (LOS), which will be one of the metrics used to evaluate potential improvements. The corridor measures of effectiveness are presented in Table C-8. The intersection average control delay and corresponding LOS grade values are presented in Table C-9. For context, the length of the study segment is 0.43 miles. Under 35 mph free flow conditions with no stops for traffic signals, it would take about 45 seconds to traverse the segment.

Table C-8: Measures of Effectiveness from Existing Conditions Synchro Model

Roadway	Approach	Peak Hour	Total Delay/ Vehicle (sec/veh)	Stops/ Vehicle	Total Travel Time (hr)	Average ¹ Speed (mph)	CO Emissions (kg)	NOx Emissions (kg)	Arterial LOS
Treat Boulevard	Westbound	A.M.	22	0.43	103	15	9.27	1.80	D
		P.M.	23	0.43	91	13	8.07	1.57	E
	Eastbound	A.M.	36	0.53	99	9	8.16	1.59	F
		P.M.	32	0.55	95	10	8.18	1.59	E

Notes: Total Delay/Vehicle (sec/veh) = The control delay plus the queue delay experienced per vehicle.
 Travel Time (hr) = The total time taken for all vehicles to travel through the corridor.
 CO Emissions (kg) = The amount of Carbon Monoxide emissions by all vehicles traveling along the corridor in a period of one hour.
 NOx Emissions (kg) = The amount of Nitrogen Monoxide emissions by all vehicles traveling along the corridor in a period of one hour.
¹Average speed accounts for traffic signal delay at the study intersections and queuing delay.

Table C-9: Intersection Average Level of Service from Existing Conditions Synchro Model

Intersection	Peak Hour	Control Delay (s)	LOS
Treat Boulevard and Main Street*	A.M.	55.7	E
	P.M.	42.9	D
Treat Boulevard and I-680 Northbound Ramps/Buskirk Avenue	A.M.	30.3	C
	P.M.	17.5	B
Treat Boulevard and Oak Road	A.M.	46.8	D
	P.M.	19.3	B
Treat Boulevard and Jones Road*	A.M.	37.6	D
	P.M.	49.8	D

Notes: HCM 2010 analysis unless specified by *.
 *HCM 2000 analysis due to HCM 2010 limitations.

LOS “D” is defined in the HCM as “approaching unstable/tolerable delay: drivers may have to wait through more than one red signal. Queues may develop but dissipate rapidly”. With all intersections modeled to be operating at LOS “D” or better (with the exception of Main Street, which is “E” in the morning peak), there is some excess capacity before excessive delay conditions would be expected to develop. However, the County has advised that with predicted future volumes in mind, no reduction in the number of lanes will be considered in this corridor.

Multi-Modal Level of Service Model

Multi-modal level of service (MMLOS) for Treat Boulevard in the current condition has been calculated for motorized and non-motorized modes of traffic using ARTPLAN 2012, the arterial street component of the LOSPLAN software suite. The underlying analysis methods are based on HCM 2010 procedures, which are the first attempt to quantify the inter-relationship of modes. These procedures are currently being revised to better account for a wider range of user types and environments.

The HCM MMLOS methods are based on user perceptions of various conditions as assessed through video labs. The model omits consideration of the variety in bicyclist types and impacts of various crossing facilities. Bicycle LOS is gauged based on the average effective width of the outside through lane, motorized vehicle volumes, motorized vehicle speeds, heavy vehicle (truck) volumes, and pavement condition. Pedestrian LOS is gauged based on the existence of a sidewalk, lateral separation of pedestrians from motorized vehicles, motorized vehicle volumes, and motorized vehicle speeds. For all modes, a letter grade of “A” indicates superior LOS. LOS results for autos are not comparable to LOS as calculated by other traffic analysis / simulation methods.

A summary of the results is provided in Table C-10. It should be noted that it is not necessary to have a dedicated bicycle facility for a roadway to be assigned a LOS grade, because a bicyclist may ride anywhere except where explicitly prohibited. These grades do not necessarily reflect what all people may consider acceptable, rather they are a relative grade based on the method’s video lab participant perceptions of conditions. While a grade of “D” may be acceptable to some confident bicyclists, it is not likely that most members of the general public would consider sharing a traffic lane with motorists along Treat Boulevard.

In comparing the bicycle and pedestrian grades for various segments and peak periods, the values are intuitive in that the segment between Main Street and Buskirk Avenue has fewer provisions for these modes. The better bicycle grades for the eastbound direction during the afternoon peak are due to the lower eastbound traffic volumes at that time of day.

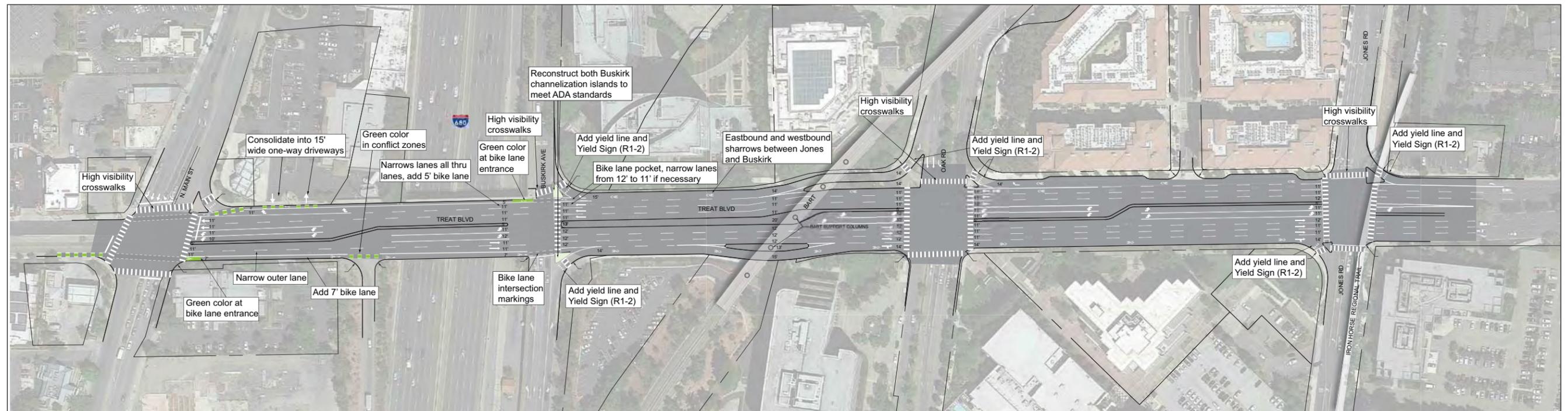
Table C-10: Multi-Modal Level of Service - Base Condition

<i>Segment</i>	<i>Direction</i>	<i>Peak Hour</i>	<i>Auto</i>	<i>Bike</i>	<i>Ped</i>
Main Street to Buskirk Avenue	EB	PM	D	D	D
	WB	AM	D	E	D
Buskirk Avenue to Oak Road	EB	PM	D	C	C
	WB	AM	D	D	C
Oak Road to Jones Road	EB	PM	D	C	C
	WB	AM	D	D	C

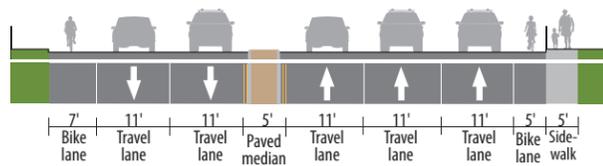
Appendix D: Concept Plans and Features

The following pages of this appendix contain:

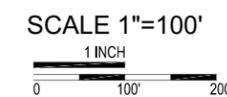
- Concept 1A, 1B, 2, and 3 sketch plans, visual simulations and cross sections
- Concept 4 Bicycle Access to Pleasant Hill BART Plan
- Concept 4 Preliminary CAD plans
- Table describing the principal features of each concept



Concept 1A Treat Blvd: Main to Buskirk



Treat Boulevard - Concept 1A: Short Term Improvement Option





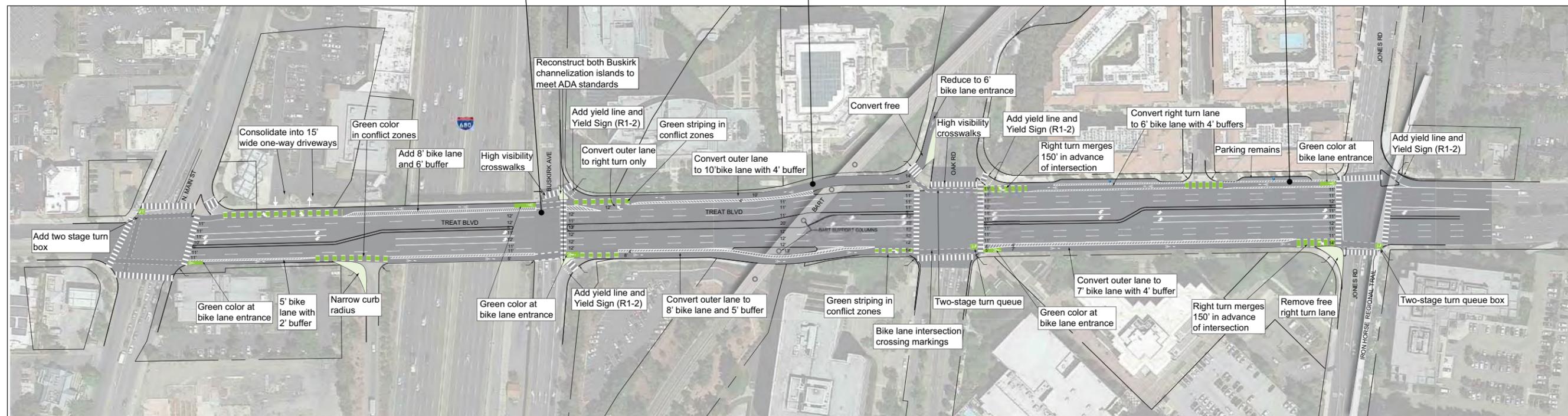
View west along Treat Blvd near Buskirk Ave



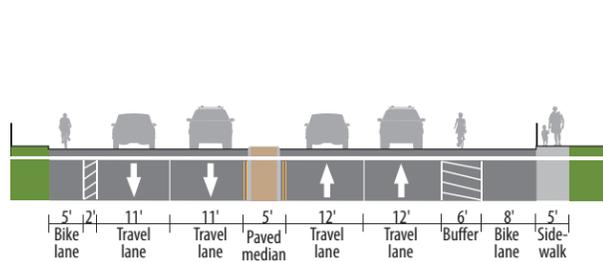
View west along Treat Blvd near the BART overpass



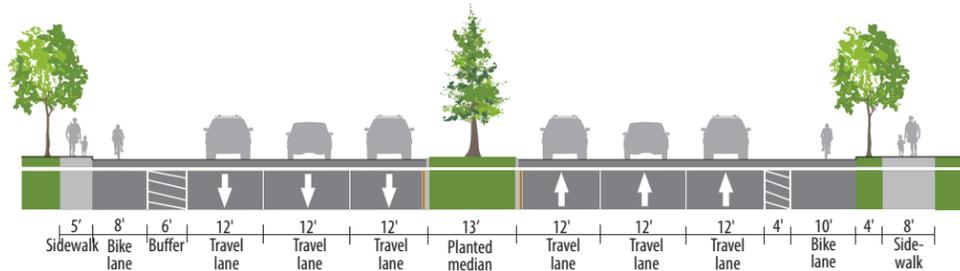
View west along Treat Blvd near Jones Rd



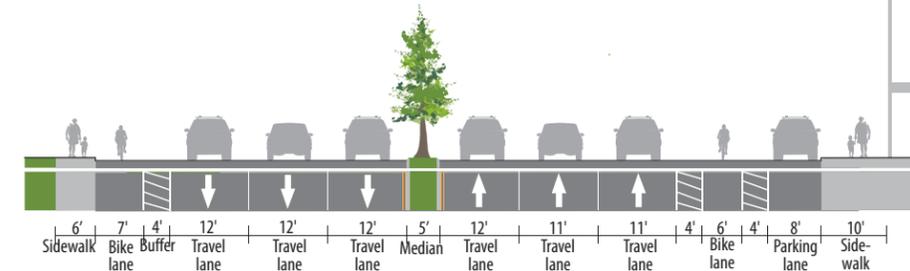
Treat Blvd: Main to Buskirk



Treat Blvd: Buskirk to Oak

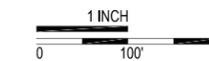


Treat Blvd: Oak to Jones



Treat Boulevard - Concept 1B: Buffered Bike Lanes

SCALE 1"=100'





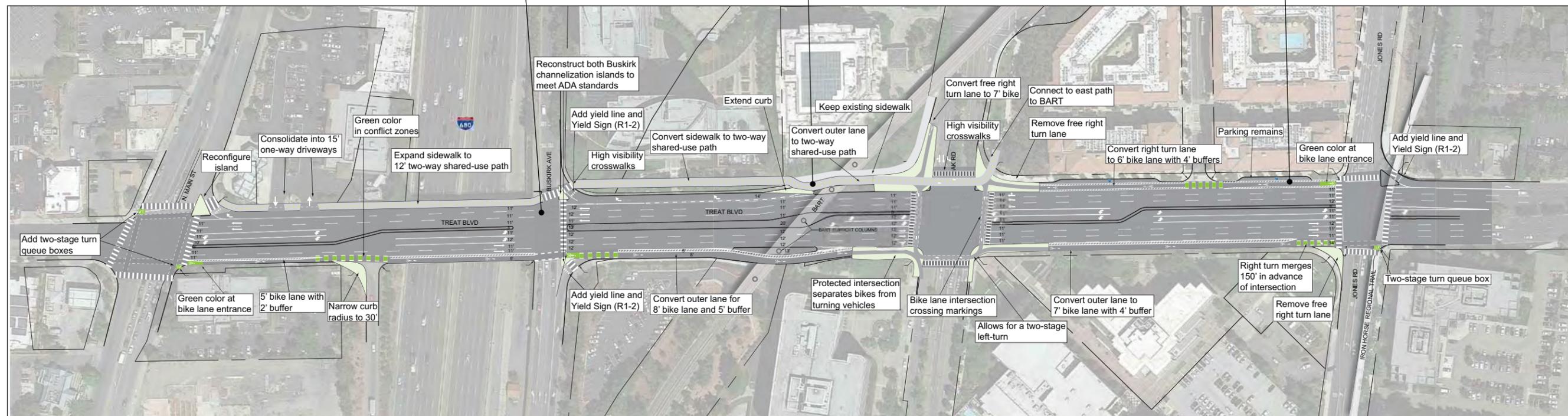
View west along Treat Blvd near Buskirk Ave



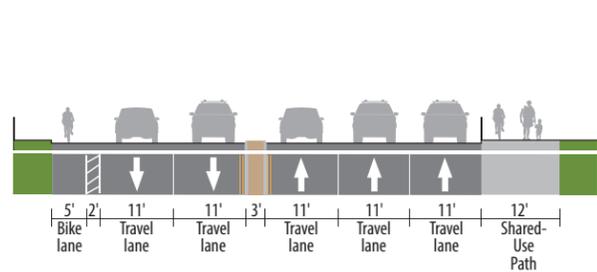
View west along Treat Blvd near the BART overpass



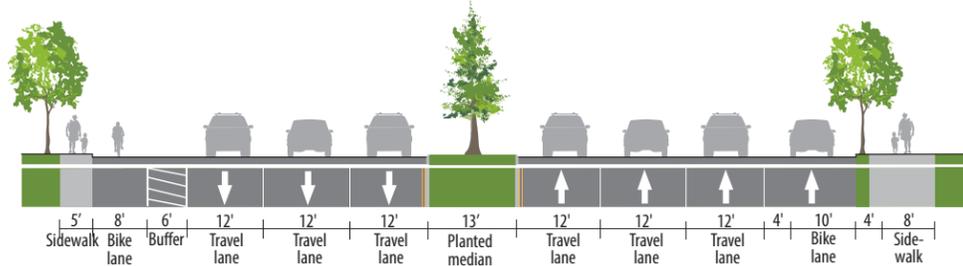
View west along Treat Blvd near Jones Rd



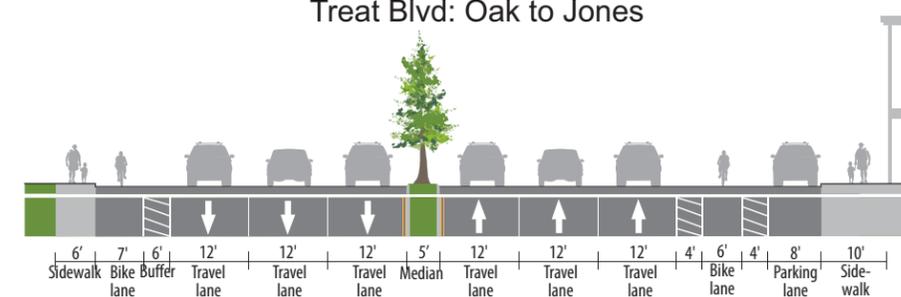
Treat Blvd: Main to Buskirk



Treat Blvd: Buskirk to Oak

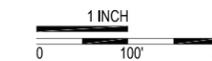


Treat Blvd: Oak to Jones



Treat Boulevard - Concept 2: Shared Use Path and Buffered Bike Lanes

SCALE 1"=100'





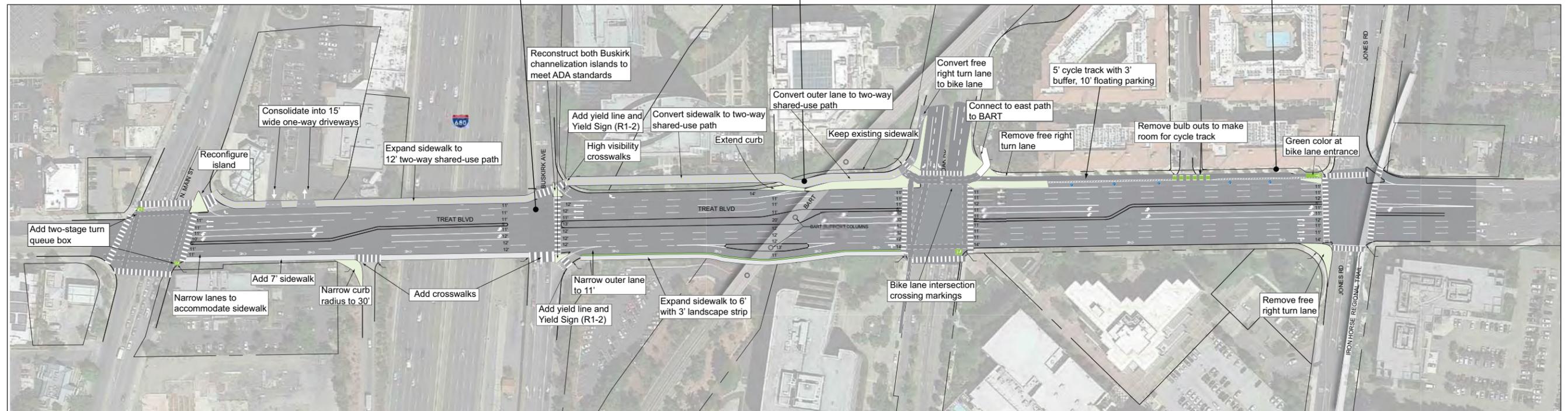
View west along Treat Blvd near Buskirk Ave



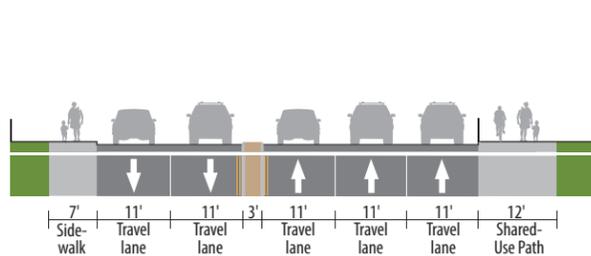
View west along Treat Blvd near the BART overpass



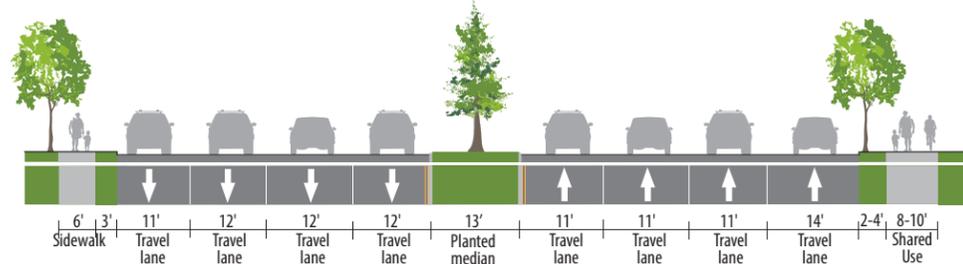
View west along Treat Blvd near Jones Rd



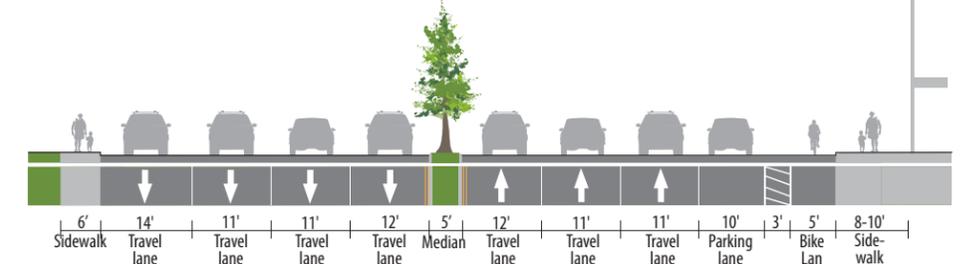
Treat Blvd: Main to Buskirk (remix)



Concept 3 Treat Blvd: Buskirk to Oak



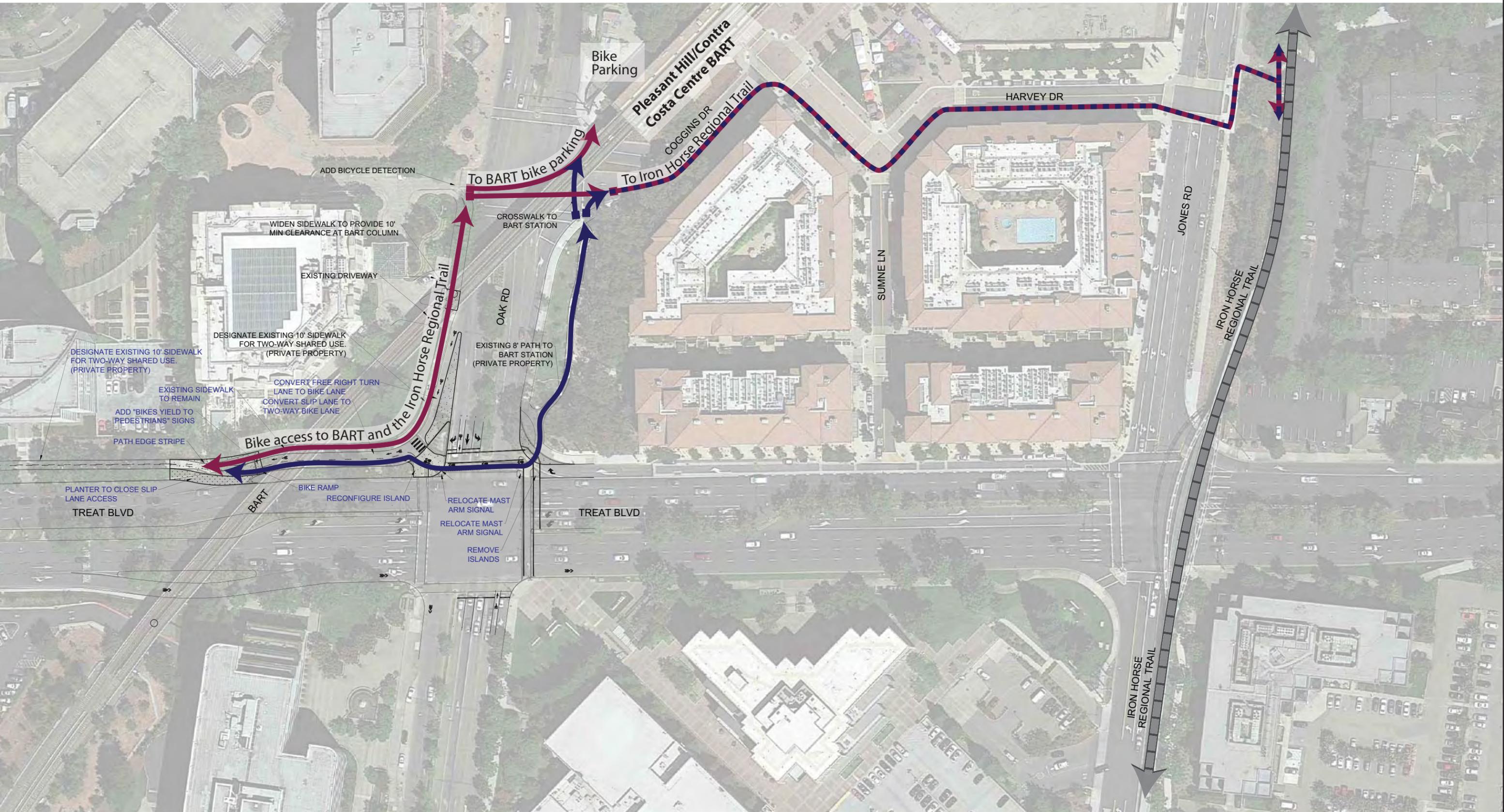
Concept 3 Treat Blvd: Oak to Jones



Treat Boulevard - Concept 3: Shared Use Path, Cycle Track and Sidewalk

SCALE 1"=100'

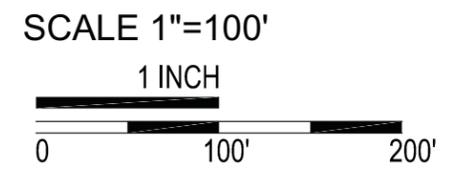


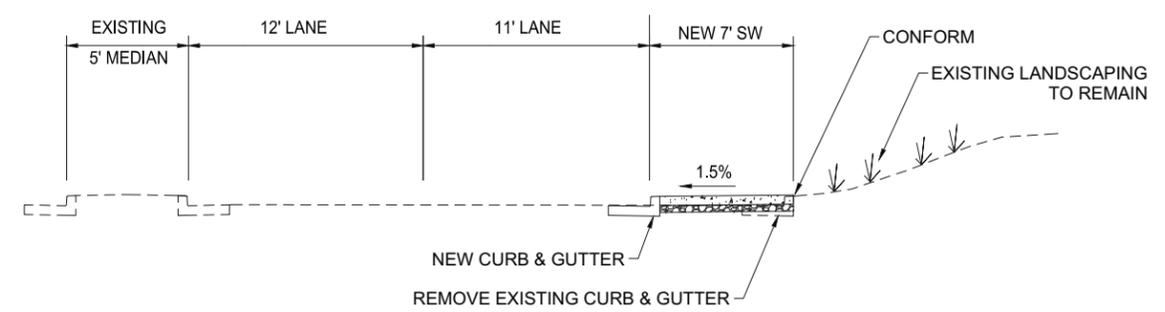
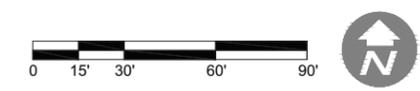
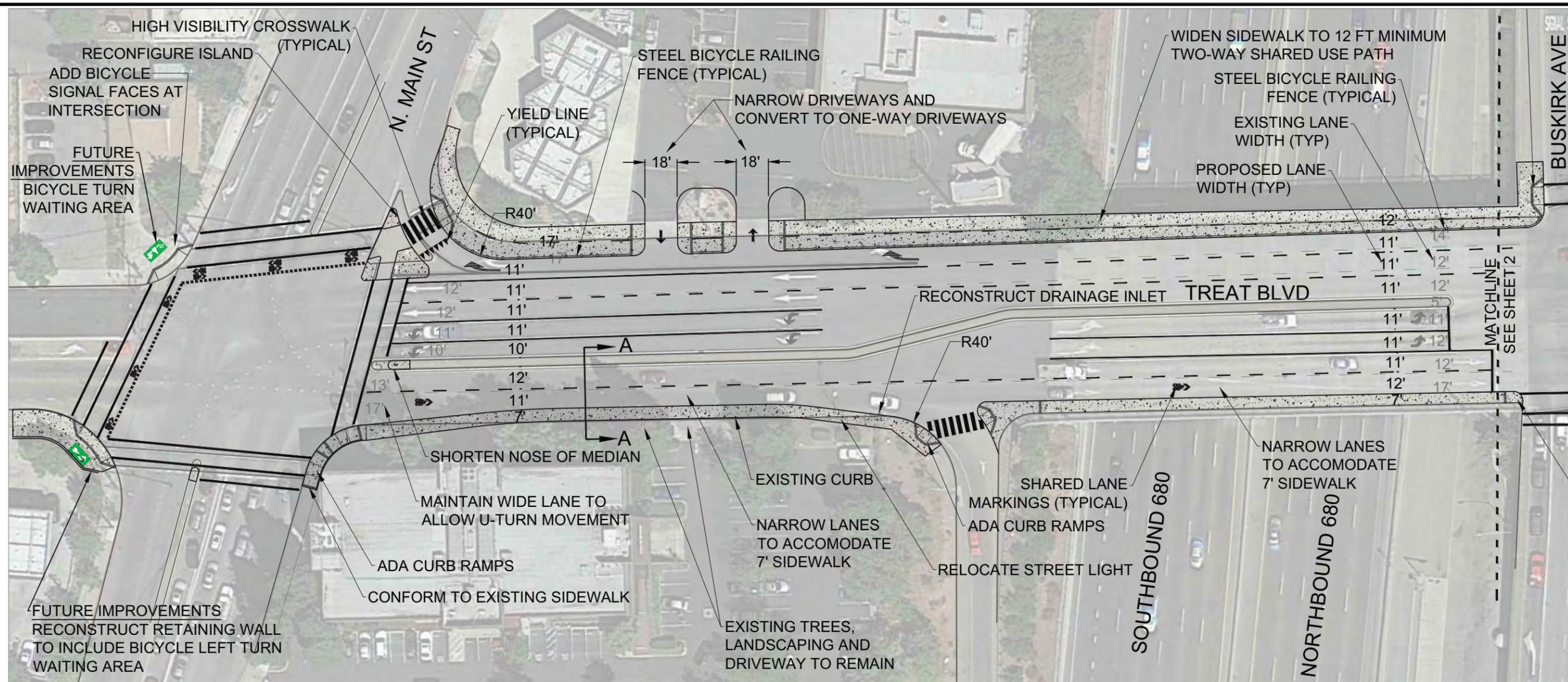


TREAT BOULEVARD BICYCLE AND PEDESTRIAN PLAN
 Concept 4 - PHASE 1 and 2
 Bicycle Access Routes

PHASE 1 Improvements BLACK TEXT
 PHASE 2 Improvements PURPLE TEXT

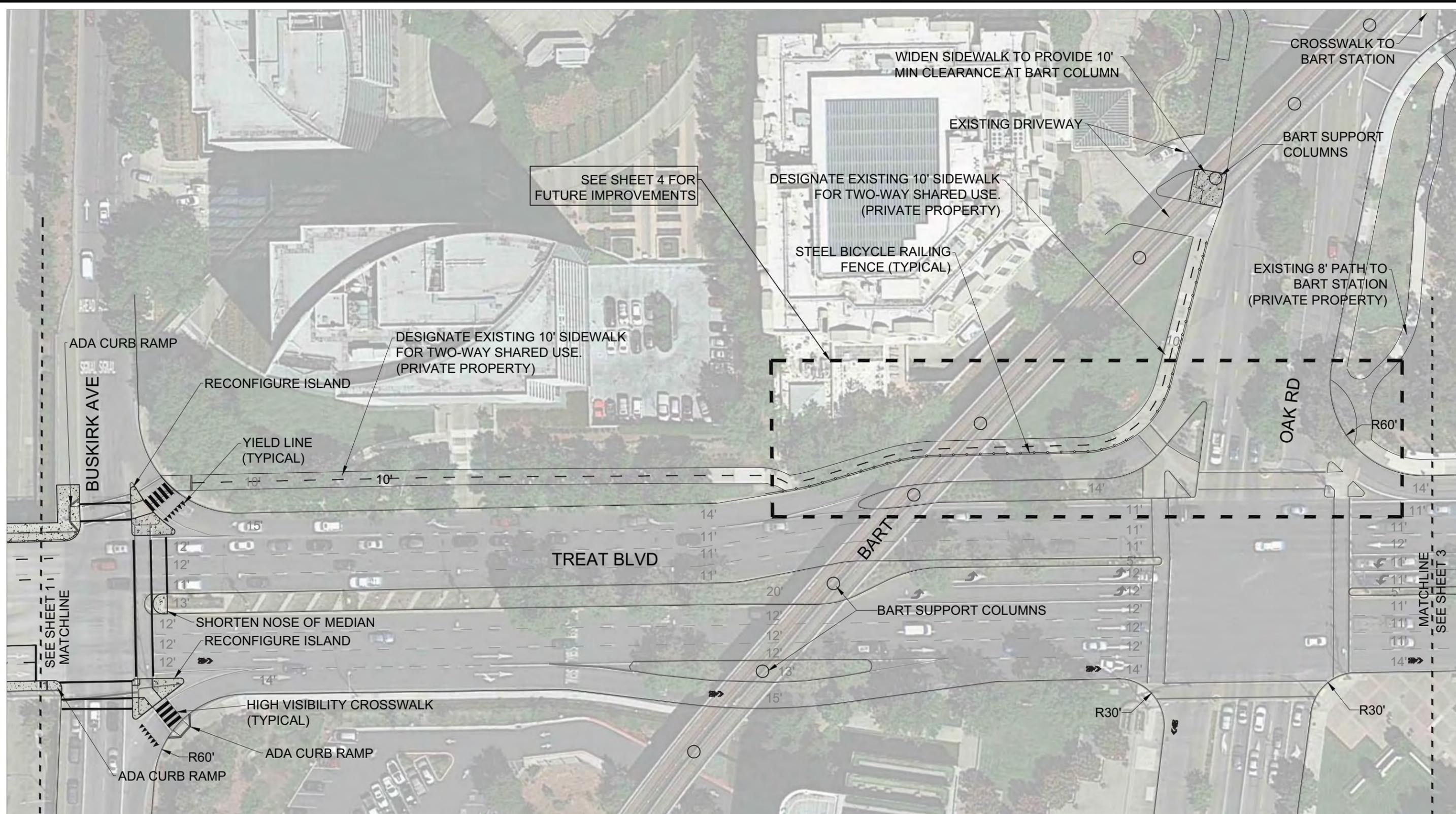
PHASE 1 Bicycle Route 
 PHASE 2 Bicycle Route 
 PHASE 1 & 2 Bicycle Route 
 Iron Horse Regional Trail 





SECTION A-A
NTS

		DESIGNED: JL	TREAT BOULEVARD BICYCLE AND PEDESTRIAN PLAN PROJECT NUMBER C49472 Concept 4 - PHASE 1	SHEET 1 OF 4
		DRAWN: LD		
REVIEWED: JL				
PROJECT NO.: 2014-122				
		SCALE: AS SHOWN	DATE: JUNE 4, 2015	



SEE SHEET 4 FOR FUTURE IMPROVEMENTS

DESIGNATE EXISTING 10' SIDEWALK FOR TWO-WAY SHARED USE. (PRIVATE PROPERTY)

STEEL BICYCLE RAILING FENCE (TYPICAL)

DESIGNATE EXISTING 10' SIDEWALK FOR TWO-WAY SHARED USE. (PRIVATE PROPERTY)

WIDEN SIDEWALK TO PROVIDE 10' MIN CLEARANCE AT BART COLUMN

EXISTING DRIVEWAY

CROSSWALK TO BART STATION

BART SUPPORT COLUMNS

EXISTING 8' PATH TO BART STATION (PRIVATE PROPERTY)

ADA CURB RAMP

RECONFIGURE ISLAND

YIELD LINE (TYPICAL)

BUSKIRK AVE

18'

10'

14'

11'

TREAT BLVD

11'

11'

11'

BART

14'

11'

11'

11'

12'

12'

12'

12'

12'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

14'

BART SUPPORT COLUMNS

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

12'

HIGH VISIBILITY CROSSWALK (TYPICAL)

ADA CURB RAMP

ADA CURB RAMP

R60'

20'

12'

12'

12'

12'

12'

13'

15'

R30'

R30'

R60'

SEE SHEET 1 MATCHLINE

MATCHLINE SEE SHEET 3



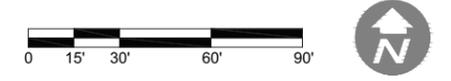
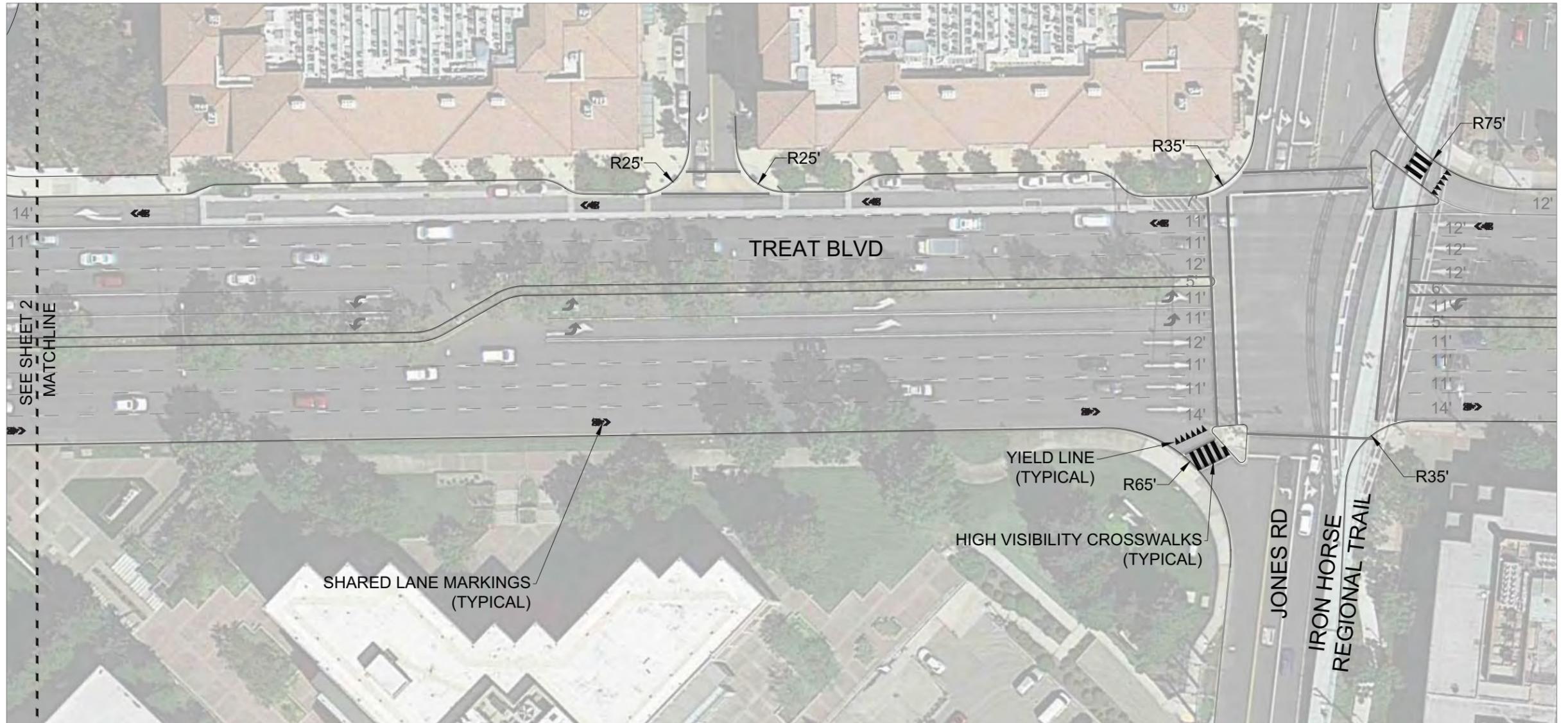
DESIGNED:	JL
DRAWN:	LD
REVIEWED:	JL
PROJECT NO.:	2014-122

TREAT BOULEVARD BICYCLE AND PEDESTRIAN PLAN
PROJECT NUMBER C49472
Concept 4 - PHASE 1

SHEET 2 OF 4

SCALE: AS SHOWN

DATE: JUNE 4, 2015



		DESIGNED: JL	TREAT BOULEVARD BICYCLE AND PEDESTRIAN PLAN PROJECT NUMBER C49472 Concept 4 - PHASE 1	SHEET 3 OF 4
		DRAWN: LD		
REVIEWED: JL				
PROJECT NO.: 2014-122				
		SCALE: AS SHOWN	DATE: JUNE 4, 2015	

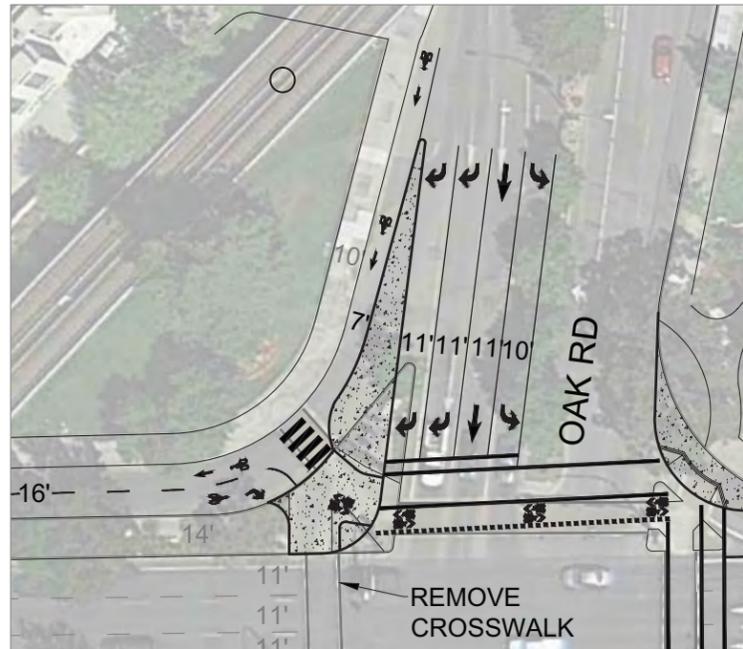
POTENTIAL VARIATIONS (REFER TO SECTION 7 OF THE PLAN):

MITIGATION 1:

- SIGNAL TIMING ADJUSTMENTS ONLY (NO GEOMETRIC CHANGES)

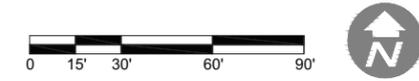
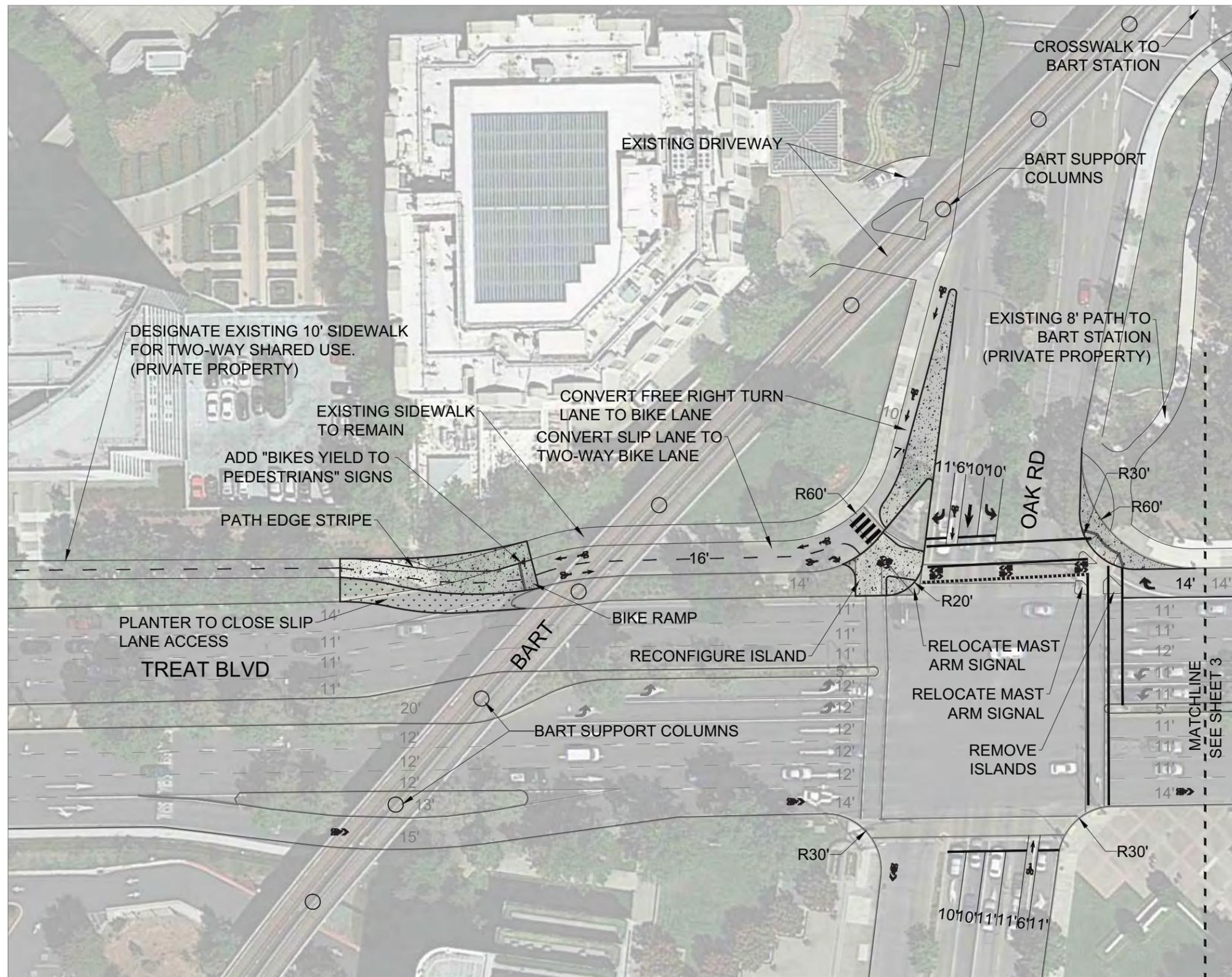
MITIGATION 2:

- 1 SOUTHBOUND LEFT TURN LANE
- 1 SOUTHBOUND THROUGH LANE
- 2 SOUTHBOUND RIGHT TURN LANES
- REMOVAL OF WEST CROSSWALK
- NO BIKE LANE POCKET



MITIGATION 3:

- 1 SOUTHBOUND LEFT TURN LANE
- 2 SOUTHBOUND THROUGH LANES
- 1 SOUTHBOUND RIGHT TURN LANE
- RETAIN WEST CROSSWALK
- NO BIKE LANE POCKET
- SOUTHBOUND RIGHT / EASTBOUND LEFT OVERLAP



		DESIGNED: JL	<p>TREAT BOULEVARD BICYCLE AND PEDESTRIAN PLAN PROJECT NUMBER C49472 Concept 4 - FUTURE IMPROVEMENTS</p>	SHEET 4	
		DRAWN: LD		SCALE: AS SHOWN	OF 4
		REVIEWED: JL			
		PROJECT NO.: 2014-122			

Table B-11 Treat Boulevard Detailed Concept Descriptions

Mode	Concept 1A: Bike Lanes	Concept 1B: Buffered Bike Lanes	Concept 2: Shared Use Path and Buffered Bike Lanes	Concept 3: Shared Use Path, Cycle Track and Southside Sidewalk	Concept 4: Shared Use Path, and Southside Sidewalk
Main Street to Buskirk Avenue					
Bicycle	<ul style="list-style-type: none"> ○ Add 5-foot WB bike lane ○ Add 7-foot EB bike lane 	<ul style="list-style-type: none"> ○ Add WB buffered bike lane ○ Add EB buffered bike lane 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path ○ Add sharrows to EB outer lane 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path
Pedestrian	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path ○ Add 7-foot sidewalk on south side 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 12-foot two-way shared-use path ○ Add 7-foot sidewalk on south side
Automobile	<ul style="list-style-type: none"> ○ Narrow WB lanes (keep all lanes) ○ Narrow outer eastbound lane (keep all lanes) ○ Convert Walgreens driveways into two 15-foot one-way driveways 	<ul style="list-style-type: none"> ○ Remove outside WB lane (two WB lanes) ○ Narrow outer EB lane (keep all lanes) ○ Convert Walgreens driveways into two 15-foot one-way driveways 	<ul style="list-style-type: none"> ○ Narrow WB lanes (keep all lanes) ○ Narrow outer EB lane (keep all lanes) ○ Convert Walgreens driveways into two 15-foot one-way driveways 	<ul style="list-style-type: none"> ○ Narrow WB lanes (keep all lanes) ○ Narrow outer EB lane (keep all lanes) ○ Convert Walgreens driveways into two 15-foot one-way driveways 	<ul style="list-style-type: none"> ○ Narrow WB lanes (keep all lanes) ○ Narrow outer EB lane (keep all lanes) ○ Convert Walgreens driveways into two 15-foot one-way driveways
Buskirk Avenue to Oak Road					
Bicycle	<ul style="list-style-type: none"> ○ Update pedestrian islands to meet ADA standards 	<ul style="list-style-type: none"> ○ Add WB buffered bike lane ○ Add EB buffered bike lane 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path ○ Add EB buffered bike lane ○ Create protected intersection separating bikes from turning vehicles at Oak Road 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path ○ Add sharrows to EB outer lane 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path
Pedestrian	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path 	<ul style="list-style-type: none"> ○ Expand north side sidewalk to 8-10-foot two-way shared-use path
Automobile	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ Remove SB right channelized right turn lane and convert to buffered bike lane (Treat Blvd / Oak Rd) ○ Convert curbside travel lanes to buffered bike lanes 	<ul style="list-style-type: none"> ○ Remove SB right channelized right turn lane convert WB outer lane to two-way shared-use path from Oak Road to BART overpass ○ Remove EB outer travel lane and convert to buffered bike lane ○ Convert third WB travel lane to right-turn pocket 	<ul style="list-style-type: none"> ○ Remove SB channelized right turn ○ Convert WB outer lane to two-way shared-use path from Oak Road to BART overpass ○ Narrow EB outer lane to accommodate expanded sidewalk ○ Convert third WB travel lane to right-turn pocket 	<ul style="list-style-type: none"> ○ Remove northwest corner channelized right turn lane ○ Convert WB outer lane to two-way shared-use path from Oak Road to BART overpass ○ Remove northeast corner channelized right turn lane
Oak Road to Jones Road					
Bicycle	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ Add WB buffered bike lane ○ Add EB buffered bike lane 	<ul style="list-style-type: none"> ○ Add WB buffered bike lane ○ Add EB buffered bike lane 	<ul style="list-style-type: none"> ○ Add WB cycle track (protected bike lane) ○ Add EB sharrows 	<ul style="list-style-type: none"> ○ Add WB sharrows
Pedestrian	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ No change
Automobile	<ul style="list-style-type: none"> ○ No change 	<ul style="list-style-type: none"> ○ Convert WB right turn lane into buffered bike lane ○ Convert outer EB lane into buffered bike lane ○ Remove WB channelized right turn at Treat Blvd / Jones Rd intersection 	<ul style="list-style-type: none"> ○ Convert WB right turn lane into buffered bike lane ○ Convert outer EB lane into buffered bike lane ○ Remove WB channelized right turn at Treat Blvd / Jones Rd intersection 	<ul style="list-style-type: none"> ○ Convert WB right turn lane into cycle track ○ Move parking to create "floating" parking lane ○ Remove WB channelized right turn at Treat Blvd / Jones Rd intersection 	<ul style="list-style-type: none"> ○ No change

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Appendix E: Concept 4 Cost Estimate

PHASE 1

NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST	
1	Mobilization & Demobilization (@ 10%)	1	LS	\$93,000	\$93,000	
2	Traffic Control	1	LS	\$60,000	\$60,000	
3	Water Pollution Control	1	LS	\$15,000	\$15,000	
4	Remove Concrete	7900	SF	\$10	\$79,000	
5	Remove Curb	1300	LF	\$20	\$26,000	
6	Remove Asphalt Concrete	18200	SF	\$6	\$109,200	
7	Remove Striping	1	LS	\$15,000	\$15,000	
8	Miscellaneous Demo	1	LS	\$10,000	\$10,000	
9	Adjust Utility Box to Grade	35	EA	\$800	\$28,000	
10	Steel Railing Fence	900	LF	\$90	\$81,000	
11	Drainage Inlet and Pipe Connection	8	EA	\$8,000	\$64,000	
12	Asphalt Concrete Pavement	3500	SF	\$12	\$42,000	
13	Concrete (Sidewalk, Median, Curb Ramp)	16500	SF	\$15	\$247,500	
14	Concrete Curb	600	LF	\$25	\$15,000	
15	Curb and Gutter	1450	LF	\$55	\$79,800	
16	Signage and Striping	1	LS	\$45,000	\$45,000	
17	Lighting	1	LS	\$8,000	\$8,000	
				CONSTRUCTION CONTINGENCY	25%	\$255,000
				DESIGN, ENVIRONMENTAL	15%	\$153,000
<i>Rounded to nearest thousand (2014 dollars)</i>				PHASE 1 - Total		\$1,426,000

PHASE 2

NO.	DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST	
1	Mobilization & Demobilization (@ 10%)	1	LS	\$50,000	\$50,000	
2	Traffic Control	1	LS	\$25,000	\$25,000	
3	Water Pollution Control	1	LS	\$6,000	\$6,000	
4	Remove Concrete	4000	SF	\$10	\$40,000	
5	Remove Curb	300	LF	\$20	\$6,000	
6	Remove Asphalt Concrete	5000	SF	\$6	\$30,000	
7	Remove Striping	1	LS	\$6,000	\$6,000	
8	Miscellaneous Demo	1	LS	\$5,000	\$5,000	
9	Adjust Utility Box to Grade	10	EA	\$800	\$8,000	
10	Drainage Inlet and Pipe Connection	2	EA	\$8,000	\$16,000	
11	Asphalt Concrete Pavement	1200	SF	\$12	\$14,400	
12	Concrete (Sidewalk, Median, Curb Ramp)	5900	SF	\$15	\$88,500	
13	Concrete Curb	140	LF	\$25	\$3,500	
14	Curb and Gutter	420	LF	\$55	\$23,100	
15	Retaining Wall	330	SF	\$90	\$29,700	
16	Landscaping and Irrigation	1	LS	\$8,000	\$8,000	
17	Signage and Striping	1	LS	\$15,000	\$15,000	
18	Signal Improvements	1	LS	\$170,000	\$170,000	
				CONSTRUCTION CONTINGENCY	25%	\$137,000
				DESIGN, ENVIRONMENTAL	15%	\$82,000
<i>Rounded to nearest thousand (2014 dollars)</i>				PHASE 2 - Total		\$764,000
				PROJECT - Total		\$1,955,000

Commenter/Organization	Date Received	Summary of Comments
<p>Adam Foster Contra Costa/Walnut Creek resident adamwfooster@gmail.com</p>	<p>9/23/2015 9:30 AM</p>	<ul style="list-style-type: none"> • Concept 4 to be inadequate for a transit village/livable community • Wide roadways that encourage high-speed vehicle movements are not welcoming to families biking • Concept 1B is an excellent long-range plan for the area. It will encourage people to bike for trips to and from the transit village by safely connecting the Iron Horse trail to N. Main Street • Please consider the lasting negative long-term impacts that would come from continuing to prioritize vehicles in a transit village (Concept 4) and implement Concept 1B.
<p>Ronald Kappesser kappesser@icloud.com</p>	<p>9/23/2015 10:24 AM</p>	<ul style="list-style-type: none"> • disappointed to read of the plan to paint sharrows on Treat Blvd • Concept 2, which includes bike lanes of a proven design is far safer, will do more to encourage cycling and is no worse than your preferred concept 3 based on your own traffic analysis
<p>Erik Owens er.kowens@gmail.com</p>	<p>9/25/2015 2:03 PM</p>	<ul style="list-style-type: none"> • should add protected bike lanes at Treat
<p>Tom Willging twillgin@gmail.com</p>	<p>9/25/2015 4:35 PM</p>	<ul style="list-style-type: none"> • Treat "BikePed" plan mostly discourages people from using bicycles, walking, or using public transportation to get to the Pleasant Hill BART station • 8 lanes for motor vehicles and has only space for a shared sidewalk for cyclists and pedestrians seems destined to continue to promote the automobile • support for Option 1B and 2
<p>Anita Bottari anitabottari@sbcglobal.net</p>	<p>9/25/2015 5:43 PM</p>	<ul style="list-style-type: none"> • intersection at Treat and Buskirk looks very dangerous for pedestrians and cyclist • needed some kind of warning light that pedestrians are present and waiting to cross • light can be triggered by a pedestrian much like the one on Jones in front of the Pleasant Hill Bart station • Please consider putting in a blinking light to show pedestrians are present and to give them the right of way

Commenter/Organization	Date Received	Summary of Comments
Sally Goodman ssdgoodman@gmail.com	9/28/2015 9:44 AM	<ul style="list-style-type: none"> • Please accept Bike East Bay's suggestions for separating pedestrians and bikes from traffic and each other
Dave Campbell Advocacy Director Bike East Bay dave.campbell62@gmail.com dave@bikeeastbay.org	9/28/2015 10:38 AM	<ul style="list-style-type: none"> • smoothing traffic flow is high on the minds of voters, and keeping 9 travel lanes for cars is one way to do that, but disregarding the safety of residents walking and bicycling does not poll well • We want the road diet with bike lanes • traffic study assumed an increased in traffic for the forecast year of 2040, yet one scenario we are asking be modeled for a Measure J reauthorization is a reduction in vehicle miles traveled • road diet options (1B and 2) should be the recommended options in the Plan • What we want: Separated Bike Lanes • Concepts 1B and 2 from the Plan both propose converting a travel lane in each direction to separated bike lanes (buffered bike lanes along the curb, in the Plan), which is a great idea • Concept 2 partially separates bicyclists from motor vehicles with curbs and islands; oth of these are needed features for the safety of residents bicycling • A further shortcoming of this Plan is that it completely fails to study bus service improvements • The Plan should also show more clearly what are the traffic impacts of options 1B and 2 (a road diet with bike lanes) to a resident driving along Treat Blvd. What will be the additional delay, if any, for this resident when traveling from Main St to Jones Rd? • Plan should summarize the public input to date. What has the public been saying about the types of improvements they want on Treat Blvd? • Plan should include a summary of these nearby related projects and if possible, talk about how they could improve traffic flow and still allow for a road diet with bike lanes on Treat Blvd. At a minimum, the public should have information about what level of traffic on Treat Blvd would allow for the road diet option, and what are the tools and additional projects necessary to achieve the road diet.

Commenter/Organization	Date Received	Summary of Comments
<p>Kenji Yamada Lead Advocacy Organizer Bike Concord kenji@bikeconcord.org 925.338.1562</p>	<p>9/28/2015 9:44 PM</p>	<ul style="list-style-type: none"> • Safety need for dedicated bicycle space without interruption. Nothing less than this is acceptable • Concepts 3 and 4 fail this standard by providing no space separated from motor traffic for eastbound bicycle traffic between Oak Rd and Jones Rd • Concept 2 is better, but provides an uncomfortable and somewhat unsafe experience for both pedestrians and bicyclists by obliging them to share the same right-of-way westward from Oak Rd • Concept 1B is a good treatment whose only shortcoming is the absence of a sidewalk along the south side of the street. We urge the County to choose this concept • ***Also submitted a 108 signature petition on 10/9/15***
<p>Lauren Bayly lbayly62@gmail.com</p>	<p>9/29/2015 10:29 AM</p>	<ul style="list-style-type: none"> • Please add a bike lane on Treat Blvd • stretch from the intersection at north main going over the overpass. The sidewalk is very narrow and pedestrians don't really appreciate having to share with a bike and the drivers make it too difficult to share the road with them
<p>Phil Williamson phillipjw@comcast.net</p>	<p>9/29/2015 11:30 AM</p>	<ul style="list-style-type: none"> • bike plan for Treat Blvd. should conform with Complete Streets guidelines to the max extent possible and ideally include separated bike lanes on each side of Treat with direct and protected access to bart's heavily used bike parking areas
<p>Caedmon Bear Walnut Creek Resident caedmon.bear@gmail.com</p>	<p>9/29/2015 7:55 PM</p>	<ul style="list-style-type: none"> • reconsider concept 1B or something that is safer and encouraging to bikes and pedestrians • please do whatever you can to remove "sharrows" from all plans • Examples of where this doesn't work is Newell westbound from Broadway to California as well as on California in both directions
<p>Dan Leaverton Berkeley, CA daniel.leaverton@gmail.com</p>	<p>9/29/2015 9:23 PM</p>	<ul style="list-style-type: none"> • I support the plans advocated by Bike East Bay and Bike Walnut Creek. Please encourage more walking and cycling by provide the safest means possible

Commenter/Organization	Date Received	Summary of Comments
Roger Graves Resident of Pleasant Hill rogergraves@gmail.com	9/30/2015 1:01 AM	<ul style="list-style-type: none"> wanted to respectfully request your consideration to go with a dedicated bike lane option
Nick Lindsey nicklindsey100@gmail.com	9/30/2015 5:17 AM	<ul style="list-style-type: none"> I'm a daily commuter, so is my wife. Please build now, as well as prepare for the future (in a smarter and sane way)
Quan fellowohboy@yahoo.com	9/30/2015 10:12 PM	<ul style="list-style-type: none"> I commute via bike to Contra Costa Centre for work every day and would find a dedicated bike lane very useful
John McKeon jmckeon@me.com	10/1/2015 7:31 AM	<ul style="list-style-type: none"> Please reconsider your stance on protected bike lanes in this project proposal
Matt Rosenthal Walnut Creek Resident matt.rosenthal@gmail.com	10/2/2015 9:54 AM	<ul style="list-style-type: none"> I think there are plenty of bike trails and it's not an efficient use of important roadway to put in a bike lane when the canal trail and iron horse trails already exist

Commenter/Organization	Date Received	Summary of Comments
<p>Bike Walnut Creek bikewalnutcreek@gmail.com</p>	<p>10/2/2015 12:25 PM</p>	<ul style="list-style-type: none"> • have serious concerns that input from bicyclists and current multimodal transportation studies was not integrated into the plan • Although the combined plan (Concept 4) attempts to balance the needs of a variety of transportation users, the outcome is that it priorities road space for motor vehicle traffic • Shared Use Paths are not “Very Significant Positive” for many pedestrians, especially compared to separated sidewalks • “Bicycle Experience” in Concept 4 is ranked as “Significant Positive” which is an unrealistic measure considering that the recommendation is for bicyclists to either share space with pedestrians or motorists • any plan with sharrows should rank “Bicycle Experience” as “Negative” and at the very least, less than “Driver Experience” • Bike Walnut Creek performs twice annual bike counts and found that on Newell Avenue, which has sharrows, over 30% of bicyclists ride on the sidewalk • Compared to the volume of bicyclists on Walnut Creek’s EBRP separated trails, the amount of bicyclists using sharrows is paltry, indicating that the majority of Walnut Creek transportation users do not find sharing a lane with motorists a comfortable experience; It is clear that feedback from the local bicycling community was not integrated into the plan • As with Bike Concord and Bike East Bay, we will stand behind a plan which ranks both pedestrian and bicyclist experience as “very significant positive”. No option was created that have these, despite the title of the plan
<p>Erin Elder Pleasant Hill Resident elder.reategui@gmail.com</p>	<p>10/2/2015 1:23 PM</p>	<ul style="list-style-type: none"> • writing today to voice my support for a separate bike lane on Treat Blvd. between Jones St. and Main St

Commenter/Organization	Date Received	Summary of Comments
<p>Kristin Tennessen Walnut Creek Resident ktenness@gmail.com</p>	<p>10/2/2015 9:17 PM</p>	<ul style="list-style-type: none"> • Your recommended Concept 4 (combined concept) proposes street treatments that disregard Complete Streets policies endorsed by our local cities, defy recommendations from the NACTO guidelines, go against modern transportation trends, and contradict with goals in your own document’s summary • By recommending a plan that creates no protected bikeway, which separates bicyclists from other transportation users, you ignite conflict between peds/bicyclists and bicyclists/motorists; This does not create a safe experience for vulnerable road users • The NACTO 7 guidelines state “On streets with posted 35 mph speeds or faster and motor vehicle volumes higher than 3,000 vpd shared lane markings are not a preferred treatment.” Traffic volumes on Treat are 48,000 vpd, which is 16 times higher than the recommended NACTO limit. Furthermore "Shared lane markings should not be considered a substitute for bike lanes, cycle tracks, or other separation treatments where these types of facilities are otherwise warranted or space permits." • Without recommending an implementation that scores “very significant positive” for pedestrians, bicyclists, and bus riders, you are wasting tax payer money by encouraging automobile use for the vast majority of residents • If you continue to recommend Concept 4, I suggest you amend your title to “Bicycle and Pedestrian Plan That Priorities Vehicle Movement Over Human being Quality Of Life.”
<p>Matt Dussing dussing@gmail.com</p>	<p>10/4/2015 10:47 PM</p>	<ul style="list-style-type: none"> • Please choose a concept for the Treat Blvd / I-680 plan which separates bicycle traffic from pedestrian traffic, and both from motor traffic, along the entire street span in both directions • bicycles need a dedicated and convenient path separate from cars and pedestrians in both directions between Main St and Pleasant Hill BART • riding a bicycle on a busy mixed use sidewalk doesn't work • If indeed it is determined only a 12 ft shared use path is possible, it would be best if 3 lanes for 2-way bike and then a pedestrian lane could be delineated. This would be similar to the bike path in Fort Mason • Also, no trees in the path! Don't follow Walnut Creek's very poor design along Ygnacio Valley Rd which is exceedingly frustrating to ride along

Commenter/Organization	Date Received	Summary of Comments
<p>Katelyn Walker walker.katelyn@gmail.com</p>	<p>Oct 7, 2015 at 1:36 PM</p>	<ul style="list-style-type: none"> • Before you continue with your proposal for a "shared path", I would strongly encourage you to go observe how well the "shared sidewalk" idea is working on Ygnacio Valley Road – a half hour during peak commute hours (7 to 8 am or 5:30 to 6:30 pm) will give you a good idea of what it's like out there • Pedestrian comfort and perception of safety will be very negatively impacted if they are forced to share a sidewalk with bicycles • bicycle experience will be negatively impacted by sharing a sidewalk with pedestrians • pedestrians often walk in the middle of the path or weave back and forth as they read their phones, and if they have earphones in or there is oncoming traffic on the path they can be nearly impossible to get around • Having bicyclists travel the wrong way on a shared path (eastbound on the north side of the road) is flat out dangerous • Phase 2 doesn't make much sense – why would you take bicycles and pedestrians off their dedicated "shared path" and make them cross Oak at a busy intersection where wait times to cross are likely longer and the danger of accidents due to right turns is greater? Phase 2 seems like a worse situation than Phase 1 • Putting sharrows on a busy road like Treat Blvd is dangerous, inconsiderate, and short-sighted

Commenter/Organization	Date Received	Summary of Comments
<p>Greg Currey Caltrans Pedestrian and Bicycle Coordination and Planning Gregory.Currey@dot.ca.gov 510-286-5623</p>	<p>10/9/2015 2:30 PM</p>	<ul style="list-style-type: none"> • Concept 4 (the preferred concept) does not provide meaningful improvements for bicyclists along all portions of the study area. The highest number of recorded bicycle-related collisions is at the intersection of Treat Boulevard and Jones Road, where only a westbound Class III bike route, with no eastbound bicycle facility, would be provided • Oak Road to Jones Road—among the reasons listed for not improving the eastbound roadway was that “bicyclists should be encouraged to use the shared-use path on the north side of the road.” However, the Plan shows that the extent of the shared-use path will be outside of this segment • Although the high number of bicyclists observed traveling westbound along Treat Boulevard, but not continuing past Jones Road, could be due to the key access point for the Iron Horse Trail, it could also indicate that this section of Treat Boulevard serves as a barrier to bicyclists due to the high speeds, roadway width, and lack of bicycle infrastructure • At Treat Boulevard and Buskirk Avenue, the 13’ median should be reconstructed to extend through the crosswalk with either a pedestrian passageway channeled through the median, or curb ramps with a level area of at least 48 inches long between the curb ramps • the existing sidewalk on the north side of Treat Boulevard will be converted to a shared-use path, introducing the potential for increased conflicts between pedestrians and bicyclists without offering significant improvements for pedestrians in this segment such as widening the existing facility and providing markings to separate travel • Concept 4, Mitigation Measure 2: This measure would remove the existing crosswalk on the west side of the Oak Road/Treat Boulevard intersection, and would not add a bike pocket to southbound Oak Road. While the multiple-threat scenario caused by the two right-turn lanes should be avoided as noted in the Plan, removing an existing crosswalk should also be avoided • Concept 4, Mitigation Measure 3: This measure would not include a bike pocket. Per HDM Section 403.6 (1) advisory standard, “locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right turn and through lane where bikes are permitted.” Also note this standard when removing slip lanes to place right-turn-only lanes adjacent to through lanes as part of the Plan

Commenter/Organization	Date Received	Summary of Comments
<p>Bruce "Ole" Ohlson bruceoleohlson@hotmail.com Bike East Bay Delta Pedalers Bicycle Club Contra Costa Countywide Bicycle Advisory Committee CCTA Bicycle & Pedestrian Advisory Committee Caltrans District 4 Bicycle Advisory Committee</p>	<p>10/9/2015 10:30 PM</p>	<ul style="list-style-type: none"> • construct sidewalks on each side of the street that extend from at least North Main Street to at least the base of the Iron Horse Trail over-crossing. These sidewalks must be on both sides of the street. The sidewalks must be fully ten-feet wide and must have at least seven-feet clear (without fire hydrants, sign posts, bus benches, bus shelters, etc.) • bicycle facility must be continuous from one end to the other. We should be sure that the curb cuts are designed to accommodate the normal pace of a cautiously ridden bicycle. This is somewhat faster than the 2.5 mph design standard for pedestrians. The curb cuts should be parallel with the direction in which the bicycle is moving (i.e., not on the point of the corner and not set back far around the curve on the side street) • must also make sure that that the entities through which this sidewalk bike path passes allow bicyclists to legally use these sidewalks • I appreciate my bicycle-advocate colleague's desires to see this street put on a road diet and buffered bike lanes included; that is my preferred outcome, too. However, I don't see that happening given the attitudes of our elected officials and their directions to staff

Commenter/Organization	Date Received	Summary of Comments
<p>Grant Gerlach Walnut Creek Resident grantgerlach@gmail.com</p>	<p>10/9/2015 11:27 PM</p>	<ul style="list-style-type: none"> • The north/south connectivity along the Iron horse trail is excellent but East/West travel is unpleasant along Treat Blvd due the freeway like setting with 9 lanes of traffic moving at high speeds and very long wait time to cross the street • I am most interested in options 1B and 2 and would like to see this listed as the preferred options • Both option 1B and 2 provide adequate space for walking and biking along this corridor leaving enough traffic lanes to support current vehicle load with a reasonable amount of delay • Options including Sharrows along this stretch of road is very dangerous due to the high vehicular speeds and likelihood for drivers to weave around cyclist is a very unpleasant experience • forcing cyclist and pedestrians on a single shared use path causes friction and is not a good design considering the different speeds that bikes and peds travel • I am interested to know why Bus service was not discussed in this plan as it goes to hand in hand with ped travel • A road diet along this stretch of roadway is the only way to achieve the aspirations behind making this corridor a more livable area



100 Webster Street, Suite 300
Oakland, CA 94607
(510) 540-5008 phone
www.altaplanning.com

Memorandum

TO Jamar Stamps
FROM Brett Hondorp
RE I-680/Treat Boulevard Bike/Ped Plan Public Comments and Next Steps

DATE November 17, 2015
PROJECT Treat Boulevard Ped/Bike Plan

This memorandum and the attached draft budget provide requested modifications to the design plans and report plus follow-up questions to clarify the scope of work.

Scope of Work

Below is the list of requested modifications to Concept 4 per your memo dated October 21, 2015. Follow-up notes and questions are listed below each modification.

Task 1 Update Design Plans and Report

The modified Concept 4 will include the proposed bike crossing treatments from the initial "Concept 4" on all four legs of the N. Main St./Geary Rd./Treat Blvd. intersection (if these markings are MUTCD approved).

- Please note, the bike crossing treatments at the N. Main St. /Geary Rd. /Treat Blvd. intersection are not in the MUTCD. The NACTO Urban Bikeway Design Guide, which is recognized by Caltrans in the "Design Flexibility in Multimodal Design" Memorandum dated April 10, 2014 (<http://www.dot.ca.gov/hq/oppd/design/2014-4-2-Flexibility-in-Design.pdf>) as a resource and guidance for design decisions, recommends similar bicycle crossing treatments.

The modified Concept 4 will allocate space in the outside travel lane (possibly by adjusting travel lanes to 10') on eastbound Treat Blvd. from the I-680 off-ramp to Jones Rd. as a Class II bike lane. As part of this effort, Alta will conduct field measurements to assess the feasibility of the bicycle lane.

- In addition to adding a Class II bike lane on eastbound Treat Blvd. from the I-680 off-ramp to Jones Road, we also recommend adding a bike lane from North Main Street to the I-680 off-ramp to connect with the existing bike lane on eastbound Treat Boulevard. This will require narrowing the travel lanes and proposed sidewalk and shifting the sidewalk to the south between North Main Street and I-680. This could also be considered as a future implementation.
- The refined concept will also consider the removal of the northbound channelized right-turn lane of the I-680 off-ramp on the south side of the Treat Blvd and Buskirk Avenue intersection. Alternatives to this option include bike crossing warning signs supplemented with flashing yellow beacons to the merging vehicles as an added yield feature.

The modified Concept 4 will include an option for future implementation that looks at widening sidewalks and adjusting curbs/medians to accommodate a shared-use path or a protected bike facility (similar to what is contained in Option 1b) on the south side of Treat Blvd. from Oak Rd. to Jones Rd. The existing R/W on the south side of Treat Blvd. appears to be set back at least 10' from the face of curb which could allow for some adjustments and maintain at least 11' travel lane widths.

The updated Plan will further emphasize that its intent is to identify short to medium range improvements for implementation and that the long term ultimate improvements in this corridor would come with reconfiguration of the I-680 ramps. New concept plans would need to be drafted at this time.

Task 2 Conduct Traffic Analysis

DKS will conduct a traffic analysis of the modified Concept 4 design to determine if the modifications result in any traffic impacts. The scope of work is to specifically analyze the impact of including an eastbound bicycle lane along the segment of Treat Boulevard between the I-680 NB off ramp and Jones Road. This option includes reducing the eastbound travel lanes from 12 feet to 10 feet to accommodate an eastbound bike lane in Concept 4. The analysis will only be limited to Concept 4 under the Future Year (2040) scenario. The synchro software will be used for the analysis as was done for the previous analysis. The results will be summarized in a technical memorandum. DKS will also provide a queuing analysis to assess the removal of the NB channelized right-turn lane at the I-680 off-ramp at Buskirk Avenue.

Task 3 Public Outreach

Alta will attend up to two public meetings as part of this task.

The first public meeting will be a Community Workshop, where the updated concept will be presented and the public can provide feedback on the plans. Alta will provide sign-in sheets, name tags, concept print-outs, meeting facilitation, and meeting notes. Alta will work with the County to draft presentation materials for the meeting. The County will help identify or provide a suitable venue for the workshop. Alta will provide the County with meeting notes based on the public feedback.

The second public meeting will be a presentation to the City of Walnut Creek Transportation Commission to solicit feedback on the updated draft concept plans. Alta will work with the County to draft presentation materials for the meeting.

Task 4 Refine Design Plans and Report

Alta and DKS will review and refine the plans and report based on one set of consolidated, internally-consistent comments from Contra Costa County and the City of Walnut Creek.

Task 5 Project Management

Alta will hold up to two conference call meetings with Contra Costa County and the City of Walnut Creek to discuss the project, methodology and deliverables.

Deliverables

- Public Meeting prep, attendance and minutes
- Draft Plans
 - Draft Modified Concept 4 Plans (Sheets 1-4)
 - Draft Updated Treat Boulevard Bicycle and Pedestrian Plan
 - Draft Traffic Analysis Technical memorandum

- Final Plans
 - Final Modified Concept 4 Plans (Sheets 1-4)
 - Final Updated Treat Boulevard Bicycle and Pedestrian Plan
 - Final Traffic Analysis Technical memorandum

SCHEDULE OF FEES & CHARGES

Updated 11-17-15

	Alta Planning + Design					DKS				Task Hours	Task Budget
	Project Manager	Senior Planner	Senior Engineer	Designer/ Graphics	Engineer	Principal in Charge	Project Manager	Engineer	Admin/ Graphics		
	Brett Hondorp	Alexandra Sweet	Laurentiu Dusciuc, PE	Erin Feehily	Jason Cook, PE	Thomas Krakow	David Mahama	Maria Tribelhorn	Deserae Mallori		
/ Rate*	\$190	\$128	\$128	\$83	\$108	\$250	\$210	\$120	\$95		
Update Design Plans and Report	1	6	12	2	24					45	\$5,252
Traffic Analysis	1	2				2	4	20	4	33	\$4,566
Public Outreach	8	14	6	10	5	0	3	2	1	49	\$6,415
<i>Public Meeting</i>	4	8	4	8	4		2	2	1	33	\$4,147
<i>City of Walnut Creek Transportation Commission Meeting</i>	4	6	2	2	1		1			16	\$2,268
Design Review and Refinement	1	2	4	2	8	1	1	2		21	\$2,688
Project Management	4	6	2							12	\$1,784
Staff Hours	15	30	24	14	37	3	8	24	5	160	\$20,705
Project Total											\$20,705

* Hourly rates are for calendar year 2015, and will be adjusted if work is continued into subsequent year(s).



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

8.

Meeting Date: 12/07/2015

Subject: CONSIDER Report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate.

Department: Conservation & Development

Referral No.: 1

Referral Name: REVIEW legislative matters on transportation, water, and infrastructure.

Presenter: John Cunningham, DCD

Contact: John Cunningham
(925)674-7833

Referral History:

This is a standing item on the Transportation, Water, and Infrastructure Committee referral list and meeting agenda.

Referral Update:

In developing transportation related legislative issues and proposals to bring forward for consideration by TWIC, staff receives input from the Board of Supervisors (BOS), references the County's adopted Legislative Platforms, coordinates with our legislative advocates, partner agencies and organizations, and consults with the Committee itself.

Recommendations are summarized in the Recommendation(s)/Next Step(s) section at the end of this report and specific recommendations are underlined in the report below. This report includes three sections, 1) LOCAL, 2) STATE, and 3) FEDERAL.

1) LOCAL

Transportation Expenditure Plan (TEP)

The Contra Costa Transportation Authority's (Authority) has been in the process of developing both the 2014 Countywide Transportation Plan (CTP) and a Transportation Expenditure Plan (TEP) to potentially be put to a vote in November 2016. A TEP is a statutorily required component of a transportation sales tax. These items are standing item for the foreseeable future. New material below is shown *in italics*.

As the TWIC has discussed at past meetings, the development of the CTP resulted in a dialog regarding the need for additional revenue for transportation improvements. The outcome of those discussions was to initiate the process to go to the ballot in November 2016 with a new transportation sales tax. The Authority Board approved this activity at their March, 2015 meeting.

At their November meeting, the Contra Costa Transportation Authority decided to suspend development of the CTP. Work on the TEP will continue independent of the CTP.

At previous TWIC and Board of Supervisors (Board) meetings we have discussed the basis on which the Authority is developing the plan, the process, and schedule. The Board has not yet endorsed the proposed transportation sales tax. For background purposes the latest full report to the Board is available at the link below.

September 15, 2015

http://64.166.146.245/docs/2015/BOS/20150915_640/650_09-15-15_826_AGENDApacket.pdf#page=128

TEP Update

At their November 3, 2015 meeting, the Board approved a letter transmitting comments and priorities on the TEP to the CCTA. The final letter is attached to this report. County staff will continue to pursue these priorities at the Regional Transportation Planning Committees and through direct communication with CCTA staff.

Process

Staff from the County and CCTA continue to communicate as necessary during the development of the TEP and ordinance if the effort is successful.

RECOMMENDATION: The Committee should DISCUSS local transportation issues of interest to the County and take ACTION as appropriate.

2) STATE

Legislative Report

The latest report from the County's legislative advocate, Mark Watts, is below. Mr. Watts will be present at the December Committee meeting to discuss the state budget, Special Session/Conference Committee, Iron Horse Corridor status, various transportation revenue proposals (see attached information regarding *regional gas tax*, and *energy extraction fees*), and other items of interest to the Committee.

11/19/2015 Report

As an update on the Special Session Conference Committee Hearings, several of the conferees continue to work through the issues with one another. Throughout the two Conference Committee meetings that have taken place to date, we have active engagement between the Democrat and Republican committee members. Additionally, industry and transportation stakeholders have been meeting with a variety of members in their districts as schedules permit. Although the Conference Committee Co-Chairs actively considered conducting a third Conference Committee Hearing to take place in the Central Valley, but that did not materialize.

In the meantime, news on the overall state financial picture has been released by the Legislative Analyst's Office (LAO), essentially finding that the state budget is in its best shape to address future economic downturns in memory, with the state's three principal General Fund revenue streams exceeding the adopted 2015-16 budget assumptions by more than \$3.6 billion. Moreover, without any further new budgetary commitments, the LAO are also projecting that 2016-17 would see a buildup of reserves on the order of \$11.7 billion. Admittedly, there are risks in their assessment, but the Rainy Day Fund would be the main recipient of the increased reserves they project and would be available to the legislature to mitigate impacts on public programs.

This budgetary news is important as the Special Session Conference Committee prepares to move ahead in January, as a key impasse in discussions between conferees and the legislative caucuses has been over the prioritization of budgetary resources, particularly in the context of the impact of recovering the weight fees on the state General Fund.

Finally, the Administration today expressed its intention to release what they characterize as a "slightly" revised Transportation Plan, possibly as soon as tomorrow.

County Sponsored Legislation

In 2015 Anthony Cannella sponsored a bill (SB 632) related to school zones which was developed by the County. The bill was an outgrowth of the County's school siting and safety efforts. SB 632 (attached - SB 632 BILLTEXT) allows local jurisdictions to expand school zones (or "slow zones") based on an engineering and traffic survey and modifies statutes related to "when children are present" signage. SB 632 is a two year bill and will return in 2016.

In a potentially related effort, the San Francisco Municipal Transportation Agency (SFMTA) is developing a proposal for an automated speed enforcement (ASE) bill in 2016, information is attached to this report. The Committee discussed ASE in 2015 and authorized staff to examine the ASE concept.

An ASE bill could be a potential compliment to SB 632:

- A criticism of SB 632 is inadequate enforcement is present, additional school zone signage will not be taken seriously. An ASE system could address that concern.

- A concern related to ASE is where implementation would occur. SB 632 could constrain and define the limited areas in which ASE would be authorized.

Staff recommends continuing to advocate for SB 632 and continue to coordinate with SFMTA in their ASE advocacy efforts.

RECOMMENDATION: The Committee should DISCUSS state legislative activities of interest to the County, including specific recommendations above and take ACTION as appropriate.

3) FEDERAL

11/19/2015 Report from Mark Watts

15 months after the Congress enacted the first extension of MAP-21 (the federal transportation authorization measure) in July, 2014 and, later, four short-term extensions, a select group of House and Senate leaders met today in a process parallel to what we are pursuing in California: new funding for transportation. The Congress has established a Conference Committee, as has been formed here, and yesterday, they began addressing the differences between each chamber's bill in the hopes of passing a final version within the next few weeks.

MAP-21 is scheduled to expire on November 20th, but the House has passed a short two-week extension giving them until December 4th to finalize an agreement with the Senate on a full transportation bill. At this writing, the Senate is expected to pass their short-term bill before this Friday when the current extension expires. As reported widely, Conference Committee Chairman Bill Shuster and the rest of the Committee leaders intend to deliver their conference report (i.e., the final bill) by November 30th.

As they stand now, both the House and Senate bills each would cover six years, but neither body identified sufficient new funding to pay for more than three years. Consequently, some negotiators have suggested that the bill be shortened by one or two years so that the amount of funding available could be condensed to increase annual spending.

A further parallel between Congress' approach and California's is that most of the work will be conducted behind the scenes; while the Conference Committee met yesterday, Committee members and in particular, Committee staff, continue to work on the bill on a daily basis.

I have been tracking the Conference Action to better understand and to be prepared in the event there will be necessary state reconciliation legislation.

RECOMMENDATION: DISCUSS that status of federal transportation funding legislation and take ACTION as appropriate.

Recommendation(s)/Next Step(s):

CONSIDER Report on Local, State, and Federal Transportation Related Legislative Issues and take ACTION as appropriate including CONSIDERATION of specific recommendations in the report above.

Fiscal Impact (if any):

There is no fiscal impact.

Attachments

BOS to CCTA re TEP November 2015

Energy Extraction Fees

Regional Gas Tax

SB 632 BILLTEXT

Controller's ASE Report Fact Sheet

The Board of Supervisors

County Administration Building
651 Pine Street, Room 106
Martinez, California 94553

John Gioia, 1st District
Candace Andersen, 2nd District
Mary N. Piepho, 3rd District
Karen Mitchoff, 4th District
Federal D. Glover, 5th District

Contra Costa County



David Twa
Clerk of the Board
and
County Administrator
(925) 335-1900

November 3, 2015

Julie Pierce, Chair
Contra Costa Transportation Authority
2999 Oak Road, Suite 100
Walnut Creek, CA 94597

Subject: Transportation Expenditure Plan & Potential Sales Tax Measure

Dear Chair Pierce:

On November 3, 2015, the Board of Supervisors (Board) approved the following comments be transmitted to the Contra Costa Transportation Authority. This letter details our position on policies and funding levels for the Transportation Expenditure Plan (TEP), currently under development by the Contra Costa Transportation Authority (Authority). At its September 15, 2015 meeting the Board received a report on TEP issues and formally recommended the positions detailed below.

This comment letter does not constitute an endorsement by the Board of the concept of a 2016 transportation sales tax. The Board will consider that broader issue at a future meeting in the context of the Board's assessment of the need for new funding for transportation and other services.

Local Streets and Roads: As you are aware, the demand for increased maintenance funding is a national, statewide, and local problem. In reviewing data regarding the County's maintenance needs, it is clear that a substantial increase in Local Streets Maintenance and Improvements funding is necessary.

An analysis performed by the Metropolitan Transportation Commission (MTC) has shown that in unincorporated Contra Costa County over a 24 year period, we have a revenue shortfall of \$442 million to address pavement and directly related non-pavement needs. Expanding on that analysis, assuming 30% revenues from a new TEP,

there would continue to be a \$350 million shortfall over the same period. These figures don't include the maintenance demand for the 111 bridges in unincorporated County.

In addition to our current maintenance shortfall, we also have a need for more funding to implement and maintain complete street projects in our unincorporated communities to serve all of the users of our roads and enhance neighborhoods.

Considering the above, the Board supports the funding levels for local streets and roads (maintenance and improvements) in a new TEP that the Regional Transportation Planning Committees (RTPCs) have taken. Specifically, SWAT at 25%-30%, TRANSPAC at 30%, TRANSPLAN at 30% and WCCTAC at 28%. This support includes complete streets concepts as detailed below. The Board recognizes the importance of improving and maintaining our local streets and roads for all modes of transportation.

Recommendations from SWAT, TRANSPAC and WCCTAC include funding for complete streets and multi-modal projects within the local streets and roads category. TRANSPLAN recommends 30% for local streets maintenance and improvements and also recommends additional funding amounts for projects for bike and pedestrian improvements, safe transportation for schools as well as Transportation for Livable Communities.

During our discussion on maintenance needs, the topic of progress at the state regarding transportation finance reform was considered. While the Board has hope that the State will reform transportation financing practices, our data show that even if the maximum funding increases considered during the recent special session of the State legislature were enacted, we would continue to have a substantial maintenance backlog.

We understand there is an interest in establishing a reporting mechanism to provide additional accountability and tracking of maintenance funding. The Board is supportive of this and is willing to work with the Authority and other member agencies to develop a mechanism to ensure that maintenance expenditure practices are transparent.

Accessible Services/Mobility Management/Paratransit: As we indicated in our October 21, 2014 comment letter on the Countywide Transportation Plan, the issue of improvements to transit for the elderly and people with disabilities (accessible services) is a priority for the Board. This issue is longstanding; the Board made similar comments in 2002 during the effort to reauthorize Measure C. The Board is making these comments due to the forecasted growth of the target population¹ and increasing costs².

¹ 65+ Bay Area population is forecasted to grow 137% by 2040. Data sources: 2010 Census, California Department of Finance, ABAG

²60% increase in paratransit cost per trip from 2004 to 2013 (average of all Contra Costa County transit agencies)
Data source: 2004-2013 National Transit Database

The Board believes this issue requires substantial, deliberate attention given that accessible transit responsibilities are diffused in Contra Costa County, making progress challenging. Accessible transit in the County consists of four different public Americans with Disabilities Act (ADA) paratransit providers, program specific transit providers, city-based providers and the County itself has certain transportation obligations related to health care and the Older Americans Act. This structure grew organically over time and as such, no single organization falls naturally into a leadership role. With the recommendations below, we want to provide a countywide direction and improve services to our shared constituency while providing much needed cost controls.

In our October 2014 comment letter we indicated that accessible service would need, in addition to additional funding, fundamental administrative changes if we are to respond adequately in a cost-effective manner to the projected demand for service. The recommendations below build on those earlier comments and are consistent with the 2013 *Contra Costa Mobility Management Plan (CCMMP)*, as well as the unfulfilled recommendations in the 2004 *Contra Costa Paratransit Improvement Study*. The recommendations in this letter and found in the CCMMP are also consistent with MTC's *Coordinated Public Transit – Human Services Transportation Plan Update for the Bay Area*. The MTC Plan has the recommendation of “strengthening mobility management” which includes the designation of a Consolidated Transportation Services Agency³ (CTSA). The designation of a CTSA is also a recommendation in the 2013 CCMMP.

The Board supports the following relative to accessible services in a new TEP:

1) The TEP should, in addition to providing additional operations funding, fund a countywide mobility management⁴ program as recommended in the CCMMP⁵. The CCMMP includes preliminary cost figures for implementation which may need to be refined as we move ahead. As implementation progresses, the Board strongly

³ CTSA: Adapted from several public sources: Created under AB 210 (1979 – “Social Services Transportation Improvement Act”). The purpose of the Act was to improve the quality of transportation services to low mobility groups while achieving cost savings, lowered insurance premiums and more efficient use of vehicles and funding resources. The legislation took the middle course between absolutely mandating and simply facilitating the coordination of transportation services. Designation of CTSAs and implementation of other aspects of the Act were seen as a flexible mechanism to deal with the problem of inefficient or duplicative transportation services.

⁴ **Mobility Management Defined:** Mobility management (MM) is a strategic approach to the coordination of transportation service, revenue streams, technology implementation, and customer service. MM directs passengers to the most appropriate and cost-effective transportation option using information, incentives, and other voluntary measures. Best implemented on a larger scale, a mobility-managed service area provides a full range of well synchronized mobility services in a cost effective manner.

⁵ A small non-profit, “Mobility Matters” (formerly, “Senior Helpline Services”) has begun providing some mobility management in Contra Costa County. However, that organization has limited funding through grants expiring in 2016. TRANSPAC provides Mobility Matters some Measure J funds (20a – Sr/Disabled Transportation) for a volunteer driver program. No Measure J funds are used for mobility management functions.

recommends consideration of a transition to the mobility management/brokerage⁶ model used in Santa Clara County.

2) Currently, Measure J has eligibility requirements placed on local jurisdictions in order to receive *Local Streets & Maintenance* funding. As mentioned in the *Local Streets and Roads* section above, additional requirements are being considered for supplementary maintenance funding. Similar to those requirements, the Board is proposing that eligibility for transit funding under a new TEP be contingent upon participation in the implementation of the mobility management program and other identified improvements to accessible services.

3) Implementing the service model proposed in #1 above is a substantial investment. We believe that the County and Authority Board members would benefit from a tour of the Santa Clara County accessible services operation, OUTREACH. The OUTREACH operation is non-profit based and is a national model for cost-effective procurement, contracting and operations⁷. During a time where our own transit operations show a trend of **increasing costs**, the OUTREACH model has shown **reduced costs**⁸. The Board is requesting attendance from Authority members on this tour tentatively scheduled for December.

4) One barrier to progress on this issue is the understandable resistance to any changes in service to a sensitive population. As we move ahead with this effort, an explicit commitment should be made by all agencies involved to insulate current accessible transit customers from service degradations or interruptions.

The Authority should be aware that the Board is fully committed to pursuing improvements to accessible transit. The Santa Clara County mobility management/brokerage model includes County support by way of competitive pricing on vehicle maintenance, vehicle parking and bulk fuel purchases. The Board is currently exploring the possibility of duplicating that service in Contra Costa.

Improved Land Use Coordination: In our October 2014 letter and at our September 15th discussion, the Board discussed the need for economic development and balancing jobs

⁶ A mobility management operation can, over time, transition to a “brokerage” model. A brokerage model splits functions related to ADA paratransit/accessible service with a transit agency. Those functions span a continuum starting with administrative responsibilities (contracting with service providers, monitoring performance, customer service) all the way up to a full service brokerage (central call center/dispatch, management of a coordinated system, etc). Adapted from FTA Report #0081, “Accessible Services for All”:
http://www.fta.dot.gov/documents/FTA_Report_No._0081.pdf#page=39

⁷ Federal Transit Administration, “*Accessible Transit Services for All*” December 2014
www.fta.dot.gov/documents/FTA_Report_No._0081.pdf#page=246

⁸ 19% decrease in cost per trip from 2004 to 2013 Data source: 2004-2013 National Transit Database

and housing to make more efficient use of our transportation infrastructure. The following statistics underscore the structural problems that challenge our transportation network as well the potential benefits of addressing these problems:

- 1) The five cities in the Bay Area with the longest commute times are all in Contra Costa County⁹;
- 2) Contra Costa is second only to Solano for having the lowest number of jobs relative to housing¹⁰ and is forecast to be the only County in the Bay Area with fewer jobs than housing units in 2040¹¹; and
- 3) Travel patterns are imbalanced resulting in substantially underutilized infrastructure. For example, State Route 4 in East Contra Costa County carries approximately 2.3 times as many vehicles in the commute direction as in the non-commute direction¹².

Long and congested commute patterns cause residents to spend more of their time commuting than in other, more valuable activities and contribute substantially to unhealthful and climate-altering emissions. A primary cause of this unbalanced, inefficient and resource-intensive transportation pattern is that it can be difficult to find jobs and housing in close proximity, or to find jobs and housing connected by transit. The potential sales tax measure now under consideration may present an opportunity to better address a root cause of the transportation challenges we face.

The Board would like to discuss with the Authority and other stakeholders the possibility of developing policies in the TEP for promoting development that reduces congestion and makes better use of transit and other existing infrastructure. We propose that conversation include two types of approaches: a) funding allocations; and b) new policy incentives. To stimulate discussion, we have included some initial ideas below on each of these two approaches. We would welcome a discussion on these and other ideas that others may have.

Initial Ideas on the Funding Allocation Approach: The TEP could allocate a portion of the future funds to a congestion reduction program related to stimulating certain types of new development. Funds for such a program could be used to stimulate certain infill and other development that demonstrates positive impacts on the transportation system, such as reduced demand on the most congested freeways and roads, better

⁹ MTC's "Vital Signs": Oakley, Brentwood, Antioch, Hercules, Pittsburg

¹⁰ ABAG: San Francisco Bay Area: State of the Region: Economy/Population/Housing – 2015 (Figure 4.27 (Jobs to Housing Ratio, Bay Area Counties))

¹¹ ABAG: Draft Plan Bay Area: Forecast of Jobs, Population, & Housing, March 2013 (Table 14 (SF Bay Area County Housing and Job Growth, 2010-2040))

¹² MTC's Vital Signs

utilization of transit, greater off-peak utilization, reduced average commute times, and reduction of out-of-county commute trips. This could take the form of development in Priority Development Areas (PDAs) near transit or other types of development that achieve the demand reduction goal. For Contra Costa County, jobs/housing balance is a key concern. A focus on developing employment centers that would offer well-paying jobs proximate to housing (i.e. priority industrial areas or priority employment areas) could have merit. Stimulating development that establishes well-paying jobs in East County, for example, could reduce strain on Highway 4, offer a far easier commute for East County residents and make better use of prior transportation investments by stimulating the counter commute.

Subject to feasibility studies, demonstration of congestion reduction, and Authority approval, local jurisdictions could request funding for projects that would stimulate development that would reduce congestion. Such investments could include transportation infrastructure (e.g. improvements to transit and roadways in areas targeted for job growth). However, to realize the congestion reduction benefit of the desired development, a broader range of investments could be considered, such as advanced telecommunication/broadband infrastructure, water, sewer, power, impact fee offsets, land assembly, or other investments. The analysis should consider not only the direct growth in jobs (and housing) likely to result from the investment, but also the net growth in jobs (certain jobs such as advanced manufacturing can have relatively high job multipliers).

Initial Ideas on the Policy Incentives Approach: The TEP might include additional policy incentives to promote infill and other development that reduces congestion. For example, the TEP could include incentives for local agencies to adopt and implement certain land-use policies such as PDAs, priority industrial areas or priority employment areas, greater density along transit or employment targets. Alternatively, incentives could be linked to certain TEP funding categories. For instance, economic development/jobs-housing balance/congestion reduction goals could be criteria for allocating funding to any competitively awarded pots of funds.

Finally, the Board hopes there can be a discussion regarding if and how the potential measure can address the fundamental shifts in the statewide transportation planning and funding landscape resulting from recent landmark greenhouse gas reduction legislation (for instance the State's replacement of the Level of Service (LOS) metric with a Vehicle Miles Travelled (VMT) metric). At this time, it may be appropriate to consider revisions to the Authority's *Growth Management Program* and *Technical Procedures* that would incrementally and strategically adapt to the new VMT standard while maintaining the local benefits of the current LOS standard.

The Board would welcome discussion on these and other ideas related to these challenging land use and transportation issues.

Bicycle Transportation Issues: Contra Costa County currently has the lowest rate of trips-by-bike rate in the Bay Area according to the MTC¹³. Please consider a strategic approach to developing and prioritizing bicycle project and program activities to reverse this rate to improve the County's ranking.

One component of that strategic approach could be to further expand and improve the County's network of separated, Class I trails. These facilities often have a substantial number of users, traveling at varying speeds, on a single path. For example, a "bicycle expressway" could be a separate project in the Iron Horse corridor that would accommodate faster cyclists. This would increase usage, safety, and comfort for both cyclists and pedestrians and merits consideration during development of the TEP.

Major Projects: The following is an update to the Board's priority project list transmitted in our October 2014 comment letter. The Board also intends on pursuing these priorities at the appropriate Regional Transportation Planning Committees.

The TriLink/State Route 239: This project continues to be a priority. In the interest of advancing a project within a shorter time frame, the Board is requesting that the Vasco-Byron Highway connector phase be prioritized in the TriLink program of projects.

The Kirker Pass Road Truck Climbing Lanes: This project addresses congestion and safety along in this critical TRANSPAC and TRANSPLAN connector road.

The northbound project, estimated to cost \$18 million, is scheduled for construction in 2018 and will provide a northbound truck climbing lane and paved shoulders for future Class II bike lanes between Clearbrook Drive in the City of Concord and the easternmost Hess Road intersection in the unincorporated area. The project is needed to improve safety for motorists and bicyclists along this stretch of road that experiences high truck traffic and is a major commute corridor between Central and East County. With sustained grades steeper than eight percent, trucks are unable to match the speed of other vehicles on the roadway, causing significant congestion and creating a safety hazard. The southbound project will add a truck climbing lane in the opposite direction and is estimated to cost over \$20 million. There is no date yet for construction, but project development activities are expected to be started within the next few years.

Capitol Corridor Voucher Program: This is a new proposed program that the Board is requesting WCCTAC and CCTA explore. WCCTAC is currently involved in a high capacity transit study that would explicitly or effectively extend BART service in West

¹³ MTC: Regional Bicycle Plan for the San Francisco Bay Area – 2009 Update.

Contra Costa County. Given that a service expansion of this type is typically a long-term process; a more immediate solution should be considered.

The Capitol Corridor Joint Powers Authority (CCJPA) currently operates the Capitol Corridor service through Contra Costa County. In order to provide some service increase to West Contra Cost residents in the short term, a TEP-funded, Capitol Corridor voucher program for Contra Costa residents should be considered. The CCJPA is currently involved in a Capitol Corridor Vision Planning process, which calls for coordination with WCCTAC and CCTA relative to the high capacity transit study. Either the CCJPA planning process or the WCCTAC High Capacity Transit Study may be an appropriate mechanism by which to explore this concept.

Marsh Creek Trail: The Board also suggests consideration of an emerging transportation project: a multi-use path in the Marsh Creek corridor that would connect east and west County on or near Marsh Creek Road. This project is in the concept stage and discussion among local jurisdictions has begun. The project would be a significant community asset and may mature enough in the next year to warrant eligibility for funding.

The following projects continue to be a priority: North Richmond Truck Route, I-680 HOV Gap Closure, Iron Horse/Lafayette-Moraga Trail Connector, Vasco Road Safety Improvements, and Northern Waterfront Goods Movement Infrastructure.

The Board of Supervisors greatly appreciates staff and consultant assistance during our deliberations on TEP development. We look forward to your response and additional engagement on this critical issue.

Sincerely,



John Gioia, Chair
Contra Costa County Board of Supervisors
Supervisor, District I

C:

David Twa, County Administrator
Sharon Anderson, County Counsel
Julie Bueren, Director – Public Works Department
John Kopchik, Director - Conservation and Development
Patricia Tanquary, CEO – Contra Costa Health Plan

Sherry McCoy, Chair – WCCTAC
Don Tatzin, Chair – SWAT
Robert Taylor, Chair, TRANSPLAN
Loella Haskew, Chair – TRANSPAC

Energy Extraction Fee

MTC Policy Advisory Council
Fuel Extraction Fee Subcommittee



What's Wrong With This Picture?

- Six states — Texas, Louisiana, Alaska, California, Oklahoma, and Wyoming — account for 80% of all oil produced in the U.S.
- California is the 3rd leading oil-producing state and the 10th natural gas-producing state in the U.S.
- California is the only major mineral-rich state lacking any form of state extraction fee.

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Severance Fees

- Extraction, or severance, fees are designed to ensure the public receives a lasting benefit from the depletion of non-renewable resources.
- By maximizing collection of fossil fuel revenue and ensuring it is adequately distributed, California will increase the benefits of energy development.

Alaska Severance Fee Facts

- Oil-related revenue from fees and taxes fund 72% of Alaska's treasury, including an annual oil revenue share check for every Alaskan citizen.
- Alaska sets aside approximately 11% of the proceeds it receives from oil and gas companies into the Alaska Permanent Fund. As of 2007, the fund had grown to more than \$40 billion.
- California receives 30% of its oil from Alaska.



MTC Should Lead the Call
for Extraction Fees to
Focus the Funds on
Transportation and Housing

...



Here's Our Plan To Get a Seat at the Table

...



Leadership Role

1. MTC should build a coalition to seek legislation or a ballot measure.

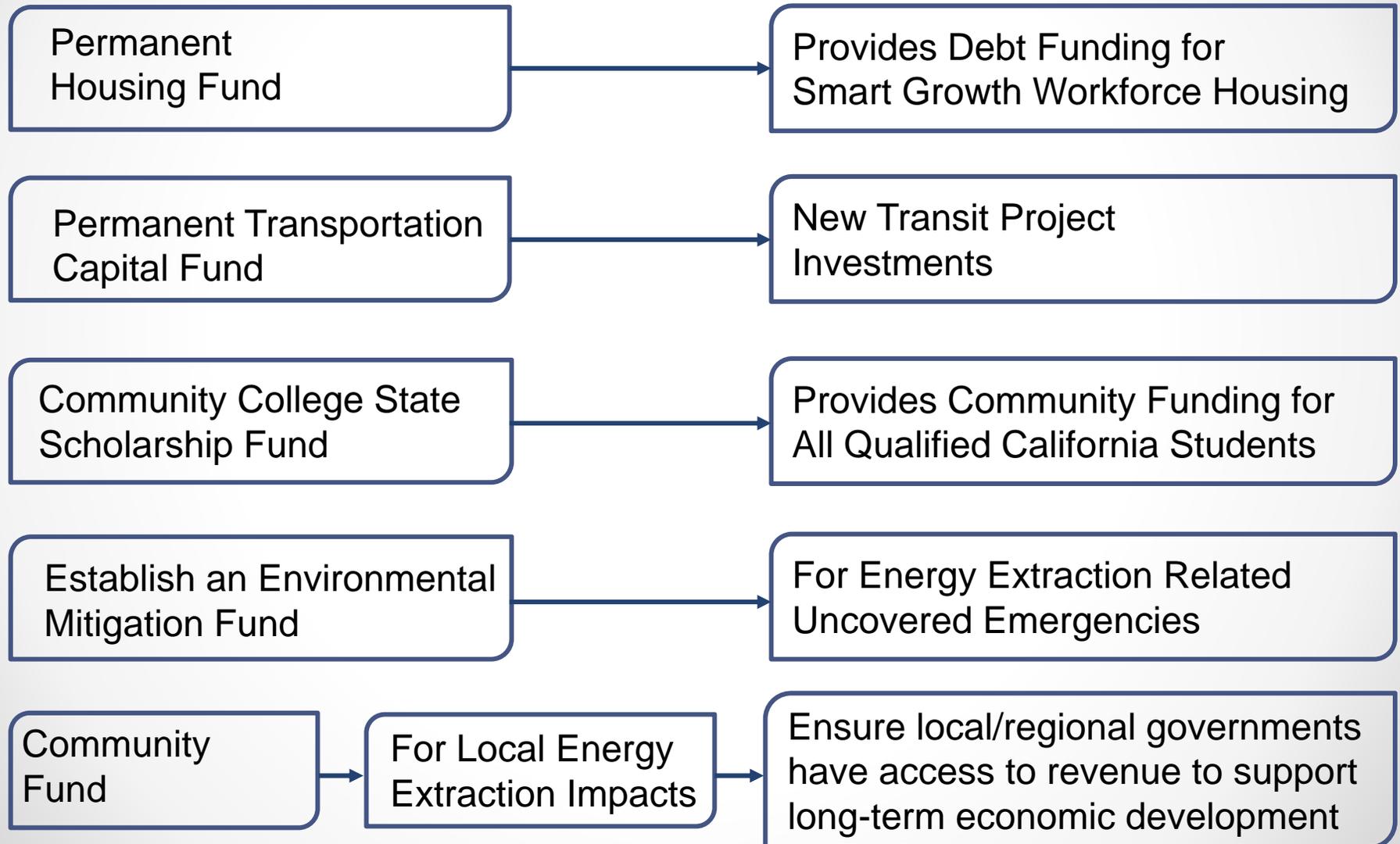
Some constituency examples:

- Transit agencies
- Housing advocates
- Community colleges
- Environmental activists
- Energy producing communities
- Senior groups

Leadership Role (continued)

2. MTC should design a simplified distribution formula for a severance fee, with revenues flowing into permanent trust funds (not the general fund).

Trust Fund Distribution Options



Regional Gas Tax Overview

October 22, 2015

Background

- MTC has the authority to request that counties place a regional gas tax on the ballot in any amount up to 10-cents per gallon for up to 20-years, raising an estimated \$28 million per year/per penny, or up to \$280 million annually.
- The exact rate to place before the voters would be determined by polling.
- While a wide variety of roadway and transit projects are eligible in the statute, we recommend focusing on street rehabilitation, including bike and pedestrian improvements.
- The statute requires that each county receive at least 95% of its population share; the summary below shows the revenue each county would receive in 2017 based on this threshold.

Distribution of 10-Cent Regional Gas Tax by Countyⁱ

County	Annual Revenue	County	Annual Revenue
Alameda	\$56,128,755	San Mateo	\$26,509,895
Contra Costa	\$38,821,008	Santa Clara	\$66,515,171
Marin	\$9,115,802	Solano	\$15,120,211
Napa	\$4,940,736	Sonoma	\$17,468,083
San Francisco	\$29,765,151	Regionwide	\$264,384,812

Process Requirements

- Adopt a Regional Transportation Expenditure Plan (RTEP) in consultation with “cities, counties, transit operators, congestion management agencies, and other interested groups.”
- Other requirements in the measure are related to large projects and are not relevant or needed for a road maintenance-focused measure.

Eligible Projects

The legislation is very broad in terms of project eligibility, including 11 different categories. It would allow MTC to pursue a “pennies for potholes” program focused strictly on roadway maintenance, though it does require that “in prioritizing projects in the expenditure plan, MTC give “additional consideration to projects where local land use policies reduce dependence on single-occupant travel.”

Election Process

- To place measure on the ballot, MTC must make a request of the Board of Supervisors in each of the nine counties. A county can refuse the request only if it submits another countywide transportation measure to the voters at the same election.
- Election costs to be paid out of proceeds from tax or other MTC funds if measure fails.
- Election law requires MTC to submit a measure to each Board of Supervisors 88 days prior to the election — by August 12, 2016 if we want to pursue approval on the November 2016 ballot.

ⁱ Based on 2010 census, pursuant to statute. Revenue is net remainder after deducting 1 percent for Board of Equalization administration of tax (estimate, not capped) and 1 percent for MTC administrative costs (statutory cap).

Introduced by Senator Cannella
(Coauthors: Assembly Members Baker and Bonilla)

February 27, 2015

An act to amend Section 22358.4 of the Vehicle Code, relating to vehicles.

LEGISLATIVE COUNSEL'S DIGEST

SB 632, as introduced, Cannella. Vehicles: prima facie speed limits: schools.

(1) Existing law establishes a 25 miles per hour prima facie limit when approaching or passing a school building or the grounds thereof, contiguous to a highway and posted up to 500 feet away from the school grounds, with a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. The prima facie limit also applies when approaching or passing school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a standard "SCHOOL" warning sign. A violation of that prima facie limit is an infraction.

Existing law additionally allows a city or county to establish in a residence district, on a highway with a posted speed limit of 30 miles per hour or slower, a 15 miles per hour prima facie limit when approaching, at a distance of less than 500 feet from, or passing, a school building or the grounds thereof, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 15 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit would also apply when approaching, at that same distance, or passing school grounds that are not separated from the highway by a fence,

gate, or other physical barrier while the grounds are in use by children and the highway is posted with one of those signs.

Existing law additionally allows a city or county to establish in a residence district, on a highway with a posted speed limit of 30 miles per hour or slower, a 25 miles per hour prima facie speed limit when approaching at a distance of 500 to 1,000 feet from a school building or grounds thereof, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 25 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit would also apply when approaching, at that same distance, or passing school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with one of those signs.

This bill would allow a city or county to establish in a residence district, on a highway with a posted speed limit of 30 miles per hour or slower, a 15 miles per hour prima facie speed limit when approaching, at a distance of less than 1,320 feet from, or passing, a school building or grounds thereof, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 15 miles per hour 24 hours a day. This bill would provide that a 25 miles per hour prima facie limit in a residence district, on a highway, with a posted speed limit of 30 miles per hour or slower, applies, as to those local authorities, when approaching, at a distance of 500 to 1,320 feet from a school building or grounds thereof. This bill would also authorize a local authority, on the basis of an engineering and traffic survey, to extend the maximum distance to establish a prima facie speed limit and school warning signs, as specified. This bill would also allow the 15 miles per hour or 25 miles per hour prima facie speed limit to apply 24 hours a day.

By authorizing a change in the prima facie limits, the bill would expand the scope of an existing crime, thereby imposing a state-mandated local program.

(2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. Section 22358.4 of the Vehicle Code is amended
2 to read:

3 22358.4. (a) (1) ~~Whenever~~*If* a local authority determines
4 upon the basis of an engineering and traffic survey that the prima
5 facie speed limit of 25 miles per hour established by paragraph (2)
6 of subdivision (a) of Section 22352 is more than is reasonable or
7 safe, the local authority may, by ordinance or resolution, determine
8 and declare a prima facie speed limit of 20 or 15 miles per hour,
9 whichever is justified as the appropriate speed limit by that survey.

10 (2) An ordinance or resolution adopted under paragraph (1)
11 shall not be effective until appropriate signs giving notice of the
12 speed limit are erected upon the highway and, in the case of a state
13 highway, until the ordinance is approved by the Department of
14 Transportation and the appropriate signs are erected upon the
15 highway.

16 (b) (1) Notwithstanding subdivision (a) or any other provision
17 of law, a local authority may, by ordinance or resolution, determine
18 and declare prima facie speed limits as follows:

19 (A) A 15 miles per hour prima facie limit in a residence district,
20 on a highway with a posted speed limit of 30 miles per hour or
21 slower, when approaching, at a distance of less than ~~500~~ *1,320*
22 feet from, or passing, a school building or the grounds of a school
23 building, contiguous to a highway and posted with a school
24 warning sign that indicates a speed limit of 15 miles per ~~hour,~~
25 ~~while children are going to or leaving the school, either during~~
26 ~~school hours or during the noon recess period.~~ *hour.* The prima
27 facie limit shall also apply when approaching, at a distance of less
28 than 500 feet from, or passing, school grounds that are not
29 separated from the highway by a fence, gate, or other physical
30 barrier ~~while the grounds are in use by children~~ and the highway
31 is posted with a school warning sign that indicates a speed limit
32 of 15 miles per hour.

33 (B) A 25 miles per hour prima facie limit in a residence district,
34 on a highway with a posted speed limit of 30 miles per hour or
35 slower, when approaching, at a distance of 500 to ~~1,000~~ *1,320* feet
36 from, a school building or the grounds thereof, contiguous to a
37 highway and posted with a school warning sign that indicates a
38 speed limit of 25 miles per ~~hour, while children are going to or~~

1 ~~leaving the school, either during school hours or during the noon~~
2 ~~recess period.~~ *hour.* The prima facie limit shall also apply when
3 approaching, at a distance of 500 to ~~1,000~~ *1,320* feet from, school
4 grounds that are not separated from the highway by a fence, gate,
5 or other physical barrier ~~while the grounds are in use by children~~
6 and the highway is posted with a school warning sign that indicates
7 a speed limit of 25 miles per hour.

8 (2) The prima facie limits established under paragraph (1) apply
9 only to highways that meet all of the following conditions:

10 (A) A maximum of two traffic lanes.

11 (B) A maximum posted 30 miles per hour prima facie speed
12 limit immediately prior to and after the school zone.

13 (3) The prima facie limits established under paragraph (1) apply
14 to all lanes of an affected highway, in both directions of travel.

15 (4) When determining the need to lower the prima facie speed
16 limit, the local authority shall take the provisions of Section 627
17 into consideration.

18 (5) (A) An ordinance or resolution adopted under paragraph
19 (1) shall not be effective until appropriate signs giving notice of
20 the speed limit are erected upon the highway and, in the case of a
21 state highway, until the ordinance is approved by the Department
22 of Transportation and the appropriate signs are erected upon the
23 highway.

24 (B) For purposes of subparagraph (A) of paragraph (1), school
25 warning signs indicating a speed limit of 15 miles per hour may
26 be placed at a distance up to ~~500~~ *1,320* feet away from school
27 grounds.

28 (C) For purposes of subparagraph (B) of paragraph (1), school
29 warning signs indicating a speed limit of 25 miles per hour may
30 be placed at any distance between 500 and ~~1,000~~ *1,320* feet away
31 from the school grounds.

32 (D) A local authority shall reimburse the Department of
33 Transportation for all costs incurred by the department under this
34 subdivision.

35 (E) *Notwithstanding the maximum distance established in this*
36 *section, a local authority may, upon the basis of an engineering*
37 *and travel survey documenting school attendance boundaries or*
38 *travel patterns to and from a school, or both, extend the maximum*
39 *distance to establish a prima facie speed limit and school warnings*

1 *signs, as defined in this section, to a distance or specific locations,*
2 *or both, consistent with the findings of the travel survey.*

3 SEC. 2. No reimbursement is required by this act pursuant to
4 Section 6 of Article XIII B of the California Constitution because
5 the only costs that may be incurred by a local agency or school
6 district will be incurred because this act creates a new crime or
7 infraction, eliminates a crime or infraction, or changes the penalty
8 for a crime or infraction, within the meaning of Section 17556 of
9 the Government Code, or changes the definition of a crime within
10 the meaning of Section 6 of Article XIII B of the California
11 Constitution.

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Automated Speed Enforcement Implementation: Survey Findings and Lessons Learned Around the Country Report Fact Sheet

REPORT PURPOSE:

- The Controller's Office surveyed six jurisdictions that implemented ASE programs to learn about the various implementation approaches and to obtain lessons learned for San Francisco's own advancement of an ASE program (See page 4 for program summary by City).

GENERAL INFORMATION:

- As of October 7, 2015, **22 people have lost their lives** while traveling on San Francisco city streets.
- Traffic deaths and injuries are preventable and unacceptable.
- Between 2008 and 2012, **unsafe speeding was the top primary collision** factor.
- ASE is a safety technique that uses cameras with vehicle speed sensors to snap photos of motor vehicles traveling above a defined threshold.
 - Most jurisdictions surveyed define that threshold at 10 MPH over the speed limit

SURVEY FINDINGS:

- Effectiveness measures and results vary by jurisdiction, but **all demonstrate that ASE is an effective tool to improve** road safety.
 - **Portland** reported a 53% reduction in fatalities since program inception.
 - **Chicago** reported a 31% decline in speeding vehicles.
 - **New York City** found a 13.4% decline in crashes with injuries that were within approximately 500 feet of installed speed cameras
- The two most prevalent issues in garnering support for speed cameras are (1) demonstrating to the public that **the purpose is improving safety rather than generating revenue** and (2) combating the public perception that speeding is an acceptable driver behavior.
- The majority of ASE programs are led by police departments; however, the jurisdictions that most recently implemented ASE programs, Chicago and New York, are led by their department of transportation.

- Programs are staffed with a combination of in-house and contractor support.
 - Based on survey results, **all jurisdictions perform a review prior to issuing a citation**; however, the jurisdictions' review process differs by the number of reviews and who reviews.
 - For jurisdictions where the police department leads the ASE program administration, trained police personnel review speed camera photos to determine if a violation occurred. For example, Denver, Seattle and Washington D.C. trained police department staff to review the violation photos for validity.
 - In Chicago, one of the two surveyed jurisdictions where the department of transportation is the lead agency, a police officer does not determine if a violation occurred. Instead, before a citation is issued, three reviewers must verify that it is a speeding violation. Department of Finance staff reviews and issues the speed camera citations.
- Most jurisdictions use both fixed and mobile cameras.
- All jurisdictions except New York City provide notice to the public about speed camera locations.
- Half of all jurisdictions fine speed camera violators a reduced amount compared to a traditional speeding ticket issued by a police officer.
- Most jurisdictions place citation responsibility on the registered vehicle owner and **configure the camera to only capture the violator's license** plate rather than the driver
- All jurisdictions that submitted this data reported that their revenues cover the cost of the program.
- Most surveyed jurisdictions direct at least a portion of the revenues to safety improvements.
- Every jurisdiction surveyed encrypts speed camera data and only uses the data for law enforcement purposes. All jurisdictions reported having a data use policy that also extends to their vendors.

LESSONS LEARNED:

- Engage the public early and share facts about the effectiveness of speed cameras and dispel myths about cameras being used for purposes other than to reduce speeding.
- Keep citation fee rates lower than moving violations and direct revenue to safety improvements.
- Include school zones in the designated enforcement area.

- Use mobile cameras because they can move to address new areas of concern and spread out enforcement to reach a greater number of locations.
- Encrypt data to ensure privacy of personal information like names and addresses.
- Place citation issuance to the registered vehicle owner for simpler administration and enhance privacy as the camera will only capture the car's license plate.
- Require reporting of program metrics to evaluate and monitor effectiveness.

Vision Zero

- One of Vision Zero's policy goals is to support authorizing legislation for Automated Speed Enforcement at the state level.
- Vision Zero was adopted as a City policy in 2014 to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and prioritize resources to implement effective initiatives that save lives.
- To achieve Vision Zero, all modes must travel at a safe speed.
 - ASE is a tool to address excessive speeding.
 - Although it has been challenging in the past to authorize the use of ASE in California and it has failed in the legislature due to opposition, it is an effective tool to curb excessive speed and save lives.
 - WalkFirst surveyed members of the San Francisco public and found support for the use of ASE to deter excessive speeding.
- Vision Zero is a multipronged approach to safety that includes multiple city departments such as the SFMTA, SFDPH, SFPD, Public Works, SFEnvironment, SF Port, SFFD, SFPUC and Mayor's Office.
- Interagency collaboration is at the core of Vision Zero SF. Agencies, city departments, stakeholders, community advocacy groups and elected officials across the city are working together to develop, fund and implement effective strategies to save lives.

CONTROLLER'S PROJECT TEAM:

- Corina Monzón, Project Manager, 554-5003 or corina.monzon@sfgov.org
- Claire Phillips, Analyst, 554-7569 or Claire.phillips@sfgov.org

ASE Implementation: At a Glance

Jurisdiction	Camera Type	ASE Enforcement Area	Alert Drivers to Camera Locations	MPH Above Posted Speed Limit for Violation	Citation Fine Schedule	Revenue Use	Revenue Distribution	# of cameras	Annual Citations
Chicago	Fixed	School and park zones	Yes	10	\$35 for 10 mph \$100 for 11+ mph	General Fund, 5% for safety initiatives	City	144	528,032
Denver	Mobile	School and construction zones	Yes	10	\$40-\$80 based on type of violation area	Safety programs	City	4	196,956
New York City	Fixed and Mobile	School zones	No	10	\$50	General Fund	City	20	445,065
Portland	Mobile	State highway construction zones and any street or roadway with a history of speeding problems	Yes	10	\$110-\$1,150 based on enforcement area and mph	General Fund and traffic safety	70% State 30% City	4	33,486
Seattle	Fixed and Mobile	School and construction zones	Yes	6	\$234	Safety improvements in school zones	City	17	41,185
Washington D.C.	Fixed and Mobile	Recent incidents of speeding-related crashes and fatalities, proximity to school zones and other places where children or other vulnerable populations are present, and known sites of chronic speeding	Yes	11	\$100-\$300 based on mph	General Fund	District	87	359,795



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

9.

Meeting Date: 12/07/2015

Subject: CONSIDER report to the Board on the status of items referred to the Committee for 2015.

Department: Conservation & Development

Referral No.: N/A

Referral Name: This is an annual Administrative Item of the Committee

Presenter: John Cunningham, DCD

Contact: John Cunningham
(925)674-7833

Referral History:

This is an annual Administrative Item of the Committee.

Referral Update:

See attached Status Report on Referrals to the Committee.

Recommendation(s)/Next Step(s):

REVIEW Status Report and DIRECT staff to forward the report to the Board of Supervisors with revisions as appropriate.

Fiscal Impact (if any):

N/A

Attachments

2015 TWIC Report - Status of 2015 Referrals

Status Report: Referrals to the Transportation, Water, and Infrastructure Committee - 2015

Submitted: December 7, 2015 TWIC Meeting

REFERRAL	STATUS
<p>1. Review legislative matters on transportation, water, and infrastructure.</p>	<ul style="list-style-type: none"> ● Recommended the Board ADOPT positions of various state transportation bills as follows (Various dates): <ul style="list-style-type: none"> ● SUPPORT/SB 321 (Beall - Motor Vehicle Fuel Taxes: Rates: Adjustments) 6/1/2015 ● Received progress reports from the County's legislative advocate regarding Iron Horse Corridor title & related obligations approving meetings with state officials on the same topic. Various Dates ● Received reports regarding the status of the Iron Horse Corridor with the state, provided direction to staff, traveled to Sacramento to meet with Caltrans and CalSTA leadership. Various Dates. Activities also relate to Referral #s 12 & 15. ● The Committee recommendation a position of SUPPORT for AB 1362 (Wolk) regarding stormwater funding. 3-2-15 ● The Committee transmitted comments to the state legislature regarding school safety and siting. 3-2-15 ● The Committee received a report on automated speed enforcement (speeding cameras) and directed staff to bring the information to the BOS 3-2-15 ● The Committee received reports regarding the Contra Costa Transportation Authority's efforts to augment Measure J with a potential new local transportation sales tax, directed staff as appropriate, forwarded recommendations and draft communication to the Board of Supervisors. Also Relates to Referral #3 Various Dates.
<p>2. Review applications for transportation, water and infrastructure-related grants to be prepared by the Public Works and Conservation & Development Departments.</p>	<ul style="list-style-type: none"> ● ACCEPTED report and AUTHORIZED the Public Works Director to submit grant applications to MTC and Caltrans for Active Transportation Funding: Fred Jackson First Mile/Last Mile Connection Project, Appian Way Complete Streets Project, Pacheco Boulevard Pedestrian Bridge/culvert extension east of Las Juntas Elementary, Rio Vista Elementary School Pedestrian Connection Project, Bailey Road/State Route 4 Interchange Pedestrian & Bicycle Improvement Project, with the following considered: Danville Boulevard Pedestrian Improvements, San Miguel Drive Pedestrian Improvements, Olympic Boulevard Corridor Connection between IHT and Lafayette-Moraga Trail, Pedestrian Improvements at I-680/Treat Overcrossing, Camino Tassajara Bike Lane Gap Closure, Port Chicago Highway/Willow Pass Road Bike & Pedestrian Improvement Project 5-4-15 ● CONSIDERED Governor's Executive Order B-29-15 (Continued State of Emergency -Drought Conditions - Gov. Edmund G. Brown Jr.) and DIRECTED staff to bring a report to the Board of Supervisors (BOS) when appropriate. 5-4-15

Status Report: Referrals to the Transportation, Water, and Infrastructure Committee - 2015

Submitted: December 7, 2015 TWIC Meeting

REFERRAL	STATUS
	<ul style="list-style-type: none"> ● Received report on countywide grant distribution 7-16-15 ● ACCEPTED report and AUTHORIZED the Public Works Director to submit grant applications Public Works Director be authorized to submit, on behalf of the County, grant applications for the Transportation Development Act (TDA) 2015/2016 funding cycle for the projects discussed above which have been determined to be the most competitive for a funding award. Various Dates ● ACCEPTED report and AUTHORIZED the Public Works Director to submit grant applications to CCTA for Statewide Transportation Improvement Program funds. 7-16-15 ● The Committee reviewed and authorized submittal, on behalf of the County, Caltrans and MTC grant applications for the Active Transportation Program (ATP), Cycle 2. 6-1-15 ● Authorized submittal of Highway Safety Improvement Program Cycle 7 Grant. 6-1-15 ● Reviewed and authorized submittal of Transportation Investment Generating Economic Recovery (TIGER) grant including the following 1) Vasco Road Safety Improvements Project - Phase 2 and 2) Kirker Pass Road Northbound Truck Lane Project. 6-1-15 ● The Committee reviewed and authorized the public Works Director on behalf of the County, to submit grant applications to CCTA for the 2016 STIP funding cycle per staff recommendations. 7-16-15
3. Monitor the Contra Costa Transportation Authority (CCTA) including efforts to implement Measure J.	<ul style="list-style-type: none"> ● No specific items were brought to the Committee in 2015. Reports on Measure J related grants and projects can be found under Referral #17. Efforts to augment Measure J are covered under Referral #1. Various Dates
4. Monitor EBMUD and CCWD projects and activities.	<ul style="list-style-type: none"> ● No items were brought to the Committee in 2015.
5. Review issues associated with the health of the San Francisco Bay and Delta, including but not limited to Delta levees, flood control, dredging, drought planning, habitat conservation, development of an ordinance regarding single-use plastic bags and polystyrene, and water quality, supply and reliability.	<ul style="list-style-type: none"> ● The Committee directed staff to bring a consolidated report to the BOS when appropriate regarding the Governor's Executive Order B-29-15 (Continued State of Emergency -Drought Conditions - Gov. Edmund G. Brown Jr.). 5-4-15 ● The Committee received a report on the proposed National Pollutant Discharge Elimination System (NPDES) permits and provided direction to staff. 7-16-15
6. Review issues associated with County flood control facilities.	<ul style="list-style-type: none"> ● The Committee received a report regarding the Statewide Stormwater Funding Initiative and other

Status Report: Referrals to the Transportation, Water, and Infrastructure Committee - 2015

Submitted: December 7, 2015 TWIC Meeting

REFERRAL	STATUS
	funding mechanisms directing staff to report back and bring a SUPPORT letter for AB 1362 (Wolk) to the BOS when appropriate. 3-2-15
7. Monitor creek and watershed issues and seek funding for improvement projects related to these issues.	<ul style="list-style-type: none"> • Related items discussed in Referral #6.
8. Monitor implementation of the Integrated Pest Management (IPM) Policy.	<ul style="list-style-type: none"> • The Committee received quarterly updates and progress report from CCHS on the County's IPM Program activities from the IPM Coordinator and directed staff to bring updates to the BOS. Various Dates • The Committee provided direction to staff regarding responses to constituent comments on the IPM program via the IPM Advisory Committee and Agricultural Commissioner. Various Dates • The Committee received a report on the status of AB 551: Rental property: Bed bugs (Nazarian) 9-5-15 The Committee directed the Department of Agriculture to develop a policy regarding drought tolerant landscaping. 9-5-15
9. Monitor the status of county park maintenance issues including, but not limited to, transfer of some County park maintenance responsibilities to other agencies and implementation of Measure WW grants.	<ul style="list-style-type: none"> • The Committee received a report on Measure WW recommendations, provided recommendations and direction to staff on project and communication with constituents on project development. 11/2/15
10. Monitor the East Contra Costa County Habitat Conservation Plan.	<ul style="list-style-type: none"> • No items were brought to the Committee in 2015.
11. Review the ability to revise the County design standards for residential streets to address traffic calming and neighborhood livability issues when these roads are built.	<ul style="list-style-type: none"> • No items were brought to the Committee in 2015.
12. Monitor and report on the Underground Utilities Program.	<ul style="list-style-type: none"> • The Committee received a report on Rule 20A underground program. 5-4-15 • Related items covered in referrals #1 and #15. Various Dates
13. Monitor implementation of Letter of Understanding with PG&E for maintenance of PG&E streetlights in Contra Costa County.	<ul style="list-style-type: none"> • DRAFT - Received report on status of coordination between Cities, County and PG & E for streetlight maintenance, and authorized staff request. 12-7-15 • Received comments from PG&E staff regarding the status of LED conversion 5-4-15.
14. Freight transportation issues, including but not limited to potential increases in rail traffic such as that	<ul style="list-style-type: none"> • Received a report on pedestrian-rail safety issues. 6-1-15

Status Report: Referrals to the Transportation, Water, and Infrastructure Committee - 2015

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REFERRAL	STATUS
<p>proposed by the Port of Oakland and other possible service increases, safety of freight trains, rail corridors, and trucks that transport hazardous materials, the planned truck route for North Richmond; and the deepening of the San Francisco-to-Stockton Ship Channel.</p>	
<p>15. Monitor the Iron Horse Corridor Management Program.</p>	<ul style="list-style-type: none"> ● The Committee received a report from City of San Ramon staff regarding overcrossing plans in the City of San Ramon over the Iron Horse Trail. 5-4-15 ● Received various reports on the Iron Horse Corridor status at the state from staff and the County's legislative advocate. Additional information available under Referral #1. Various Dates ● The Committee heard a report on Kinder Morgan's Integrity Management Program and directed staff to bring the presentation to the appropriate Municipal Advisory Committees and to the Board of Supervisors (BOS) on consent. Various Dates
<p>16. Monitor and report on the eBART Project.</p>	<ul style="list-style-type: none"> ● No items were brought to the Committee in 2015.
<p>17. Review transportation plans and services for specific populations, including but not limited to County Low Income Transportation Action Plan, Coordinated Human Services Transportation Plan for the Bay Area, Priorities for Senior Mobility, Bay Point Community Based Transportation Plan, Contra Costa County Mobility Management Plan, and the work of Contra Costans for Every Generation.</p>	<ul style="list-style-type: none"> ● <i>The Committee received a report and provided direction to staff on Olympic Corridor Trail Study. 7-16-15</i> ● DRAFT - The Committee received a report and provided direction to staff on the I-680/Treat Boulevard Bike/Pedestrian Plan. 12-7-15
<p>18. Monitor issues of interest in the provision of general transportation services, including but not limited to public transportation and taxicab</p>	<ul style="list-style-type: none"> ● Received multiple reports on proposed implementation framework responsive to prior Committee direction and State taxicab legislation from CAO staff and input from the Treasurer-Tax Collector, Sheriff's Department, and County Counsel. Various Dates.

Status Report: Referrals to the Transportation, Water, and Infrastructure Committee - 2015

Submitted: December 7, 2015 TWIC Meeting

REFERRAL	STATUS
services	<ul style="list-style-type: none">• CAO will report back in 2016 including: 1) consider the pros/cons of a Joint Powers Agreement vs. a Memorandum of Understanding in the context of how many taxi's operate in the County, 2) how will new ride sharing services will be affected by a new local regulatory structure, and 3) identify areas where the state may preempt local jurisdictions. (11/2/15)
19. Monitor the statewide infrastructure bond programs.	<ul style="list-style-type: none">• No items were brought to the Committee in 2015.



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

10.

Meeting Date: 12/07/2015

Subject: REVIEW, REVISE as appropriate, and ADOPT the 2016 Calendar and the Committee Mailing List.

Department: Conservation & Development

Referral No.: N/A

Referral Name: N/A

Presenter: John Cunningham, DCD

Contact: John Cunningham
(925)674-7833

Referral History:

REVIEW, REVISE as appropriate, and ADOPT the 2016 Calendar.

Referral Update:

The Committee should review and adopt the 2016 Draft TWIC Calendar.

Recommendation(s)/Next Step(s):

REVIEW, REVISE as appropriate, and ADOPT the 2016 Calendar.

Fiscal Impact (if any):

N/A

Attachments

2016 TWIC Calendar



TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

Supervisor Candace Andersen, District II Chair
Supervisor Mary N. Piepho, District III, Vice Chair

2016 Meeting Schedule

DATE	ROOM	TIME
January 4	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
February 1	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
March 7	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
April 4	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
May 2	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
June 6	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
July 11*	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
August 1	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
September 12*	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
October 3	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
November 7	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.
December 5	651 Pine Street, Room 101, Martinez	1:00 to 2:00 p.m.

*Provision made for 4th of July Holiday

*Provision made for Labor Day Holiday

The Agenda Packets will be mailed out prior to the meeting dates.

For Additional Information Contact:

John Cunningham, Committee Staff
Direct Line: 925-674-7833
Main Transportation Line: 925-674-7209
John.Cunningham@dcd.cccounty.us



Contra Costa County Board of Supervisors

Subcommittee Report

TRANSPORTATION, WATER & INFRASTRUCTURE COMMITTEE

11.

Meeting Date: 12/07/2015

Subject: CONSIDER report to the Board on the status of items referred to the Committee for 2016

Department: Conservation & Development

Referral No.:

Referral Name: This is an annual Administrative Item of the Committee

Presenter: John Cunningham, DCD

Contact: John Cunningham
(925)674-7833

Referral History:

This is an annual Administrative Item of the Committee.

Referral Update:

See attached recommended referrals to the Committee for 2016. One change has been made to Referral #18.

Recommendation(s)/Next Step(s):

CONSIDER recommendations on referrals to the Committee for 2016, and take ACTION as appropriate.

Fiscal Impact (if any):

N/A

Attachments

2016 DRAFT TWIC Referrals

DRAFT 2015 Referrals to the Transportation, Water and Infrastructure Committee

(Submitted to TWIC at their December 7, 2015 meeting)

1. Review legislative matters on transportation, water, and infrastructure.
2. Review applications for transportation, water and infrastructure grants to be prepared by the Public Works and Conservation and Development Departments.
3. Monitor the Contra Costa Transportation Authority including efforts to implement Measure J.
4. Monitor EBMUD and Contra Costa Water District projects and activities.
5. Review issues associated with the health of the San Francisco Bay and Delta, including but not limited to Delta levees, flood control, dredging, drought planning, habitat conservation, development of an ordinance regarding single-use plastic bags and polystyrene, and water quality, supply and reliability.
6. Review issues associated with County flood control facilities.
7. Monitor creek and watershed issues and seek funding for improvement projects related to these issues.
8. Monitor the implementation of the Integrated Pest Management policy.
9. Monitor the status of county park maintenance issues including, but not limited to, transfer of some County park maintenance responsibilities to other agencies and implementation of Measure WW grants and expenditure plan.
10. Monitor and report on the East Contra Costa County Habitat Conservation Plan.
11. Review the ability to revise the County design standards for residential streets to address traffic calming and neighborhood livability issues when these roads are built.
12. Monitor and report on the Underground Utilities Program.
13. Monitor implementation of the Letter of Understanding with PG&E for the maintenance of PG&E streetlights in Contra Costa.
14. Freight transportation issues, including but not limited to potential increases in rail traffic such as that proposed by the Port of Oakland and other possible service increases, safety of freight trains, rail corridors, and trucks that transport hazardous materials, the planned truck route for North Richmond; and the deepening of the San Francisco-to-Stockton Ship Channel.
15. Monitor the Iron Horse Corridor Management Program.
16. Monitor and report on the eBART Project.
17. Review transportation plans and services for specific populations, including but not limited to *County Low Income Transportation Action Plan, Coordinated Human Services Transportation Plan for the Bay Area, Priorities for Senior Mobility, Bay Point Community Based Transportation Plan, Contra Costa County Mobility Management Plan, and the work of Contra Costans for Every Generation.*
18. Monitor issues of interest in the provision of general transportation services, including but not limited to public transportation and taxicab/[rideshare](#) services.
19. Monitor the statewide infrastructure bond programs.